ADVANCING QUALITY CULTURES FOR TEACHER EDUCATION IN EUROPE:
Tensions and Opportunities

Edited by
Brian Hudson, Pavel Zgaga and Björn Åstrand

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Part 3

Introduction

This monograph has been written and published as a new contribution of the *Teacher Education Policy in Europe* (TEPE) Network.[1] The initiative to set up the TEPE Network was agreed in 2006 at Umeå University (Sweden) and the first TEPE conference was organised at the University of Tallinn (Estonia) from 1 to 3 February 2007 by a relatively small group of participants from eight countries. The second conference was hosted by the Faculty of Education, University of Ljubljana (Slovenia) from 21 to 23 February 2008. The conference brought together a significantly larger group of some 100 participants from 23 countries representing most European regions to discuss the current situation of Teacher Education in Europe, look to the future and formulate recommendations for Teacher Education policy at the local, national and European levels. Umeå University (Sweden) was the organizer of the third Annual TEPE Conference from 18 to 20 May 2009, hosting once again about 100 participants from a number of countries across Europe and more widely. In 2010, a TEPE Colloquium was organised from 21 to 22 June by the School of Education at University College Dublin (Ireland) while the fourth Annual Conference has been announced to take place at the University of Tallinn from 31 September to 2 October this year.

In five years, the TEPE initiative has established firm roots and a growing number of supporters and contributors. At the same time, teacher education policy issues in Europe have become even more important.

At its inauguration in Autumn 2006, the TEPE Network stressed that "Europeanisation in higher education has reached a point in time which requires a range of responses at the institutional and disciplinary level. The current situations demand that such responses are based on academic (self-)reflection and that research methods are applied in the process of preparing and discussing reforms in European universities. The academic world is able to provide policy analysis in order to strengthen a process of decision making at institutional level as well as a

[1] See http://tepe.wordpress.com/about/.

process of European concerting. Education Policy is a genuine task for higher education institutions today" (TEPE, 2006).

Of course, the TEPE Network is not alone in addressing this challenge; it has predecessors and partners (more on this aspect can be found in Hudson and Zgaga, 2008, pp. 7 – 15). We have to build on our experiences from past projects on one hand while on the other we have to strengthen co-operation between institutions, groups and networks with similar goals. In the past, contributing to the development of Teacher Education policy was not a major item on agendas of the universities and institutions of initial teacher education. On the contrary, it was left almost exclusively in the hands of national authorities. Also today, national authorities have their important roles in this domain; however, times have changed and policy development is increasingly understood as an issue of the partners' involvement and European co-operation.

The new European reality has brought a number of new perspectives; it has also brought new dilemmas. Discussing both perspectives and dilemmas is of key importance for understanding and connecting complex and diverse European educational systems. Since the late 1980s, European co-operation programmes (e.g. Erasmus, Tempus, etc.) have made a substantial impact on building convergence between different systems; yet the systems of Teacher Education seem to still be extremely divergent and this aspect needs to be addressed seriously.

In recent years, the European Commission has highlighted that in many Member States there is little systematic coordination between different elements of the continuing professional development of teachers, leading to a lack of coherence and continuity, especially between teachers' initial professional education and their subsequent induction, in-service training and professional development and that these processes are rarely linked to school development and improvement or to educational research (Commission of the European Communities, 2007). Accordingly, TEPE recognises the need to develop a new quality culture in relation to Teacher Education in its broadest sense at both national and institutional levels.

With its partners, TEPE shares the view that a new quality culture is needed at both national and institutional levels in order to promote

teachers' competencies, as a crucial precondition for high quality learning in the future. Ehlers (2009) writes that we are entering a new era in quality management for higher education which is moving away from a mechanistic to a holistic and cultural view of quality in education. This involves an emerging understanding that quality development, in essence, demands for the development of an organisational culture based on shared values, necessary competencies and new professionalism. Whereas, much attention has been paid to mastering instruments of quality control or accreditation in the past decades, the focus is increasingly on mastering change, allowing ownership for individual development, promoting champions in organisations and enabling professionals in higher education contexts.

A professional culture of collaboration and mobility has yet to become widely implemented in Teacher Education and there is an associated need to advance the development of quality cultures based on a career-long perspective on teacher development which includes Initial Teacher Education, Induction and Continuing Professional Development. The Commission's document *Improving the Quality of Teacher Education* (Commission of the European Communities, 2007) emphasises the importance of reflective practice and research in teachers' work: "as with members of any other profession, teachers have a responsibility to develop new knowledge about education and training."

This is the second TEPE monograph. The first one (Hudson and Zgaga, 2008) sold out very quickly (it is now available on the Internet) and has received some highly positive feedback. Thus, a reviewer in the *Journal of Education Policy* noted that it "must be essential reading for all leaders in education with concerns over the future trajectory of teacher education and its impact on the quality of teaching in all institutions" (Czerniawski, 2010).

Indeed, the issue of quality in Teacher Education stands at the very forefront of TEPE activities. It was the "file rouge" of the last conferences (Umeå 2009), will be so once again this year at the TEPE Annual conference in Tallinn 2010 and it is also the key word in the title of this monograph.

There are altogether 15 articles (written by 23 authors from 12 European countries) divided into three parts. Two articles form the *first part* which

discuss some broader issues for Teacher Education in Europe: the impact of the Bologna Process on Teacher Education and the issue of the quality and status of teacher educators. The *second part* consists of five articles which discuss various dimensions of Teacher Education in Europe: Nordic, Central European as well as South-east European practices are analysed. In addition, Canadian (Quebec) policies and practices are also discussed. The *third part* addresses specific aspects of teacher education in Europe: teacher identity building, the teacher-researcher, the construction of upper-secondary teachers' professional roles, preparing subject matter teachers for work, liberal science teacher education, chemistry teachers views on competencies, the concept of knowledge in Teacher Education and the role of drama education in developing the personality and social competencies of teachers.

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Part 1

SETTING THE SCENE – SOME BROADER ISSUES for Teacher Education in Europe

Bologna and Initial Teacher Education in Portugal[2]

Bártolo Campos
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ABSTRACT

The recent reform of initial teacher education policy in Portugal was developed in the context of implementing the Bologna Process and the broader European Union work programme of "Education and Training 2010". This keynote highlights the links of this reform with the policy guidelines of these European processes; it also compares this reform with the changes other European member states are making following the Bologna Process concerning the degree structure of teacher education programmes. The Portuguese teacher education reform is integrated in a career-long professional development perspective and particularly emphasises: a research-based level of qualification; a professional qualification where the learning outcomes are those required by the renewed role of the teacher; a teaching qualification acquired in the teaching context with supervised practice, internship and early career support (induction) periods demanding mutual-benefit partnerships between higher education institutions and schools; quality development and quality assurance measures. However, the transformation of this written reform into innovative practices of policymakers, of teacher education institutions and of teacher educators and mentors, as well as of the main stakeholders constitutes a great implementation challenge which is benefitting from the support stemming by European co-operation.

Key words: teacher, teacher educator, quality of education, teacher education policy, professionalism

The recent reform (February 2007) of initial teacher education policy in Portugal was developed in the context of implementing the Bologna Process components (namely those related to the degree structure, the

[2] Keynote for the TEPE (Teacher Education Policy in Europe) 2009 Conference (Umea, 18-20 May).

European Credit Transfer and Accumulation System ("ECTS"), learning outcomes and quality assurance) and of the broader European Union work programme of "Education and Training 2010" (Portugal, 2007b). The improvement of teacher education quality is one of the objectives of this work programme developed in the European Union in the framework of the Lisbon Strategy; this work programme also integrates higher education and the Bologna Process. The most recent documents related to this objective are the Communication from the European Commission of August 2007 (European Commission, 2007) and the Conclusions of the Council of the European Union of November 2007 (Council of the European Union, 2007)[3]. These Conclusions were reached following the mentioned Communication and define the policy priorities on teacher education agreed by the education ministers as guidelines for national policies and European Union co-operation in the field.

This keynote[4] highlights the links between the teacher education reform in Portugal and the policy guidelines of these European processes; it also compares this reform with the changes other European member states are making following the Bologna Process concerning the degree structure of teacher education programmes[5]. We could say that the

[3] In September 2008, the European Parliament also adopted a Resolution on this topic. The European Parliament also recently commissioned, at the request of its Committee on Culture and Education, a study on the content and quality of primary school teacher education in the European Union member states (Institute of Education, 2008). The work developed in the late 1990s by the Erasmus Thematic Network of Teacher Education in Europe ("TNTEE") (Buchberger et al., 2000) can be seen as a background for the preparatory work on this objective carried out by the Commission and member states' representatives between 2002-2007; for further information on this preparatory work between 2002-2004, see Campos (2006). In this context, an OECD study (2005) also deserves mention.

[4] A shorter version of this keynote was presented at the European Network of Education Councils ("EUNEC") Conference *The Teaching Profession: Changes, Challenges and Perspectives* (Vilnius 13-15 October 2008). To some extent, it follows the text about *Teacher Education Policy in Portugal* distributed by the Portuguese Ministry of Education during the Portuguese Presidency of the Council of European Union (Portugal, 2007 c); I am the author of the section of this text on initial teacher education.

[5] This comparison is based on a survey made in 19 European member states by Dimitropoulos (2008) in the framework of activities of the European Network for Teacher Education Policies ("ENTEP") activities. In relation to implementation of the Bologna Process in teacher education programmes of 12 South-East European countries, see Zgaga (2006).

Bologna guidelines apply to teacher education programmes in that they are provided at the higher education *level*; the "Education and Training 2010" guidelines also refer to the *content* of these programmes.

The new initial teacher qualification policy in Portugal was designed to meet the education and training challenges teachers face nowadays and to make a greater contribution to improving the quality of their teaching practices. This reform is integrated in a: *(i) career-long professional development perspective* and it particularly emphasises *(ii) a research-based level of qualification; (iii) a professional qualification* where the learning outcomes are those required by the renewed role of the teacher;*(iv) a teaching qualification acquired in the teaching context* with supervised practice, internship and early career support (induction) periods demanding mutual-benefit partnerships between higher education institutions and schools; and *(v) quality development and quality assurance.* However, the transformation of this written reform into innovative practices of policymakers, of teacher education institutions and of teacher educators and mentors as well as of the main stakeholders constitutes a great (vi) *implementation challenge* which is benefiting from the support stemming from European co-operation.

1 Career-long teacher professional development

According to the Conclusions of the Council of the European Union, "Member States should give high priority to sustaining and improving the quality of teacher education within a career-long perspective" (Council of the European Union, 2007, p. C300/7). The Portuguese teacher education system was already designed in a career-long perspective by the 1986 Education Act, in the same year Portugal joined the European Union (Campos, 2000). From the early 1970s, the initial subject-teacher education programmes have been higher education degrees following either the concurrent or the consecutive model; class-teacher education programmes, organised according to the concurrent model, have also been provided by higher education institutions and have awarded a degree since the mid-1980s. In-service teacher education, including specialised teacher education (curriculum development, teaching supervision, school management and leadership etc.), became widespread from the early 1990s onwards thanks to the contribution of the European Social Fund. However, the foreseen

induction period was never implemented. We only deal here with the initial segment of the system, noting that even this should be designed in a lifelong learning perspective, as pinpointed in the Bologna Process.

2 Teaching qualification at a higher and research-based level

Master's level professional qualification. The Council of the European Union agreed to "endeavour to ensure that teachers hold a qualification from a higher education institution…" and to "consider the adoption of measures aimed at raising the level of qualifications…for employment as a teacher" (Council of the European Union, 2007, p. C300/8). From 2007/2008 onward, to be allowed to teach in Portugal one has to acquire a Master's professional qualification from the 2nd cycle of higher education within the context of the Bologna Process, that is, at level 7 of the European Qualifications Framework ("EQF") (European Parliament and Council of the European Union, 2008). The total higher education ECTS credits demanded vary between 240 and 300 (180+60 to 120), depending on the school education level.

In the *class teacher* case, the 1st cycle is already aimed at teacher education and at qualifying the students for a broader range of professional tasks in the training, socio-cultural and communication sectors; this common first cycle gives access to a specific class teacher qualification at master's level:

(i) pre-school *or* the first four grades of primary school (60 ECTS credits);
(ii) pre-school *and* the first four grades of primary school (90 ECTS credits);
(iii) primary school (six grades) (90 to 120 ECTS credits).

In the *subject teacher* case, only the 2nd cycle, with a workload of 90 to 120 ECTS credits, is specifically aimed at the teaching qualification; access to this cycle presupposes that candidates have already completed a minimum number of ECTS credits in respective subjects during the preceding 1st cycle of higher education. One could say that class teacher education follows the *concurrent* model, while the education of subject teachers is to a certain extent organised in a *consecutive* way.

The same qualification level for all teachers. It is worth pointing out that since 1997 the level of professional qualification for teaching (as well as salary) has been the same for all teachers, putting an end to the differences between class teachers and subject teachers; however, until now this qualification used to be obtained in the 1st cycle of higher education (level 6 of the EQF).

Raising qualification level. It should be underlined that the recent change mentioned above does not mean longer courses (they were already 4 to 5 years long), but rather changes in the level of expected learning outcomes. As is well known, the EQF characterises qualification levels by the nature of specific learning outcomes and not in relation to aspects of input or training processes leading to such outcomes; there are also level descriptors within the framework of the Bologna Process. This level raising has clear implications for curriculum organisation: it is not enough to simply change the names (Master's instead of Bachelor)[6].

Research-based qualification. The Council of the European Union agreed to "endeavour to ensure that teachers hold a qualification…which strikes a suitable balance between research-based studies and teaching practice" and "Promote…the acquisition of competences which enable teachers to…develop new knowledge and be innovative through engagement in reflective practice and research" (Council of the European Union, 2007, pp. C300/8 and 9). In fact, this higher level of teacher qualification is characterised by a closer relationship with research. The construction of particular solutions for the diversity of teaching situations requires that teachers make links, through reflective practice, between the knowledge acquired in their professional experience and research results and theoretical developments (Niemi, 2008; Edwards, 2001; Erixon et al., 2001). For this reason, greater emphasis is given in the Portuguese reform to the methods and results of educational research as a component of initial teacher education in order to develop an

[6] In a recent policy paper, the European Trade Union Committee for Education (ETUCE, 2008) "expressed regret at seeing that Ministers failed to bring forward any firm commitment in relation to raising the level of qualification…of teacher education. The Ministers…failed to express any substantial recommendation as regards the need to raise the actual level of qualification of teachers" (p. 27). On the contrary, the Ministers, as already mentioned, agreed to "consider the adoption of measures aimed at raising the level of qualifications…for employment as a teacher" (Council of the European Union, 2007, p. C300/8).

investigative attitude in their professional practice in a specific context. This is one of the distinguishing features of this teacher education reform and the one that creates the most challenges for higher education institutions[7].

Qualification for teaching in school education as well as in vocational and adult education. This research-based professional qualification is required in order to be authorised to teach in pre-school education and in all programmes awarding compulsory (nine-year-long) and upper-secondary education certificates; therefore, it covers teaching:

- in public and private sectors;
- not only when students are children and youngsters but also when they are adults; and
- in school education and also in vocational training programmes as long as they award certified academic qualifications[8].

The degree structure of teacher education programmes in other European member states. According to a survey conducted by Dimitropoulos (2008) in 19[9] EU member states, not all of them had already made reforms in teacher education after the Bologna Declaration. What follows refers to the situation at the end of 2007.

Only in two-thirds of the surveyed member states do *pre-school teacher* education programmes award a higher education degree, a bachelor in the great majority and a master's in a few cases; the others still award a secondary education or a post-secondary education diploma. Nearly all the programmes follow the concurrent model and their duration ranges from 3 to 4 years; in some member states, however, both models,

[7] For information on research structures in teacher education in Portugal, see Campos (2001).

[8] It is worth noting that teaching qualifications for technical and vocational subjects were not affected by this recent reform. The policy decision about the qualifications required to teach these subjects is currently under review; it is foreseen that professionals with a minimum qualification level from the 1st cycle of higher education (Level 6 of the EQF) and additional pedagogic training can become teachers. Regarding this topic, the Council agreed to endeavour to ensure that teachers "working in the field of initial vocational education, are highly qualified in their professional area and hold a suitable pedagogical qualification" (Council of the European Union, 2007, p. C300/8)

[9] Austria, Czech Republic, Cyprus, Estonia, Finland, France, Germany, Greece, Ireland, Latvia, Luxembourg, Malta, Netherlands, Portugal, Romania, Slovenia, Spain, Sweden, United Kingdom.

concurrent and consecutive, coexist. Nevertheless, only in a few member states do these programmes apply the ECTS.

The situation is somewhat different when it comes to *primary school teacher* education. Now all teacher education programmes award a higher education degree, mostly a bachelor, and half of them apply the ECTS; their duration ranges from 3 to 5 years and, in general, they follow the concurrent model, although in some member states both models coexist.

Finally, *subject teacher education* programmes follow a consecutive model: the teaching qualification is acquired after a bachelor degree in a programme awarding a post-graduate diploma or, in some cases, a master. Most of the programmes apply the ECTS and their duration ranges from 4 to 6.5 years.

Dimitropoulos (2008) concludes the survey by identifying some emerging trends in reforms of the degree structure of teacher education programmes whenever they are already adapted to the Bologna Process framework:

- developing in higher education institutions;
- awarding a higher education degree;
- awarding a master's degree, namely in the case of subject teacher education programmes;
- applying the ECTS; and
- following the concurrent model (in the case of class teacher education programmes) or the consecutive one (in the case of subject teacher education programmes).

One could say that these are the trends guiding the reform of initial teacher education in Portugal.

3 Curriculum based on learning outcomes: outcomes required by the teaching role

Level and field of learning outcomes. In terms of the Bologna Process, higher education programmes are characterised and compared not only in terms of the credits or hours students need to complete, but also in terms of the kind of learning outcomes (level and field) that those hours are

dedicated to. The desired learning outcomes, or those that the courses should guarantee, are the organising principle of the teacher education curriculum and the fundamental criterion for its accreditation. After having made reference to the *level* of learning outcomes, we now turn to the specific characteristics of the *field* of teaching qualification.

Learning outcomes required by the teaching role. The Council noted that "numerous … changes in society…hasten the need for the development of more competence-centred approaches to teaching, together with a greater emphasis on learning outcomes" (Council of the European Union, 2007, p. C300/7). Whatever the chosen term (competencies, standards…), in the last few years several EU member states have already defined the expected learning outcomes of teacher education programmes (Eurydice, 2006). In the recent policy definition used in Portugal, these programmes should ensure the acquisition of learning outcomes required by the teaching role and by career-long professional development. The teaching profile and the curriculum to be taught are the main sources for setting up these learning outcomes; other factors to be considered for choosing learning outcomes are emerging changes in society and schools and, as a consequence, in the role of the teacher; as well as scientific and technological developments and any relevant research in the area of education. This means that higher education institutions, whenever they are preparing future teachers, should also take into account and contribute to the permanent renewal of the school education curriculum.

Teaching profile. The teaching profile was already designed in 2001 and is organised according to the role of teachers not only in the classroom, but also in the school, in the relationship between the school and the community and in their own professional development[10]. In this profile, teaching is clearly defined as a *professional* activity rather than a *technical* one. In this context, the Council of the European Union has highlighted the preparation of some more demanding "new" tasks of the teacher's role (Council of the European Union, 2007, p. C300/9) [11].

[10] The English version of this profile can be found in Campos (2002).

[11] In fact, the Council agreed to "Promote, during initial teacher education, early career support and through continuous professional development the acquisition of competences which will enable teachers to:

- Teach transversal competences such as those outlined in the Recommendation on key competences,

Learning outcome areas. The specific content of learning outcomes (knowledge, competencies and attitudes) needed to fulfil teacher tasks is to be defined by higher education institutions in the framework of their scientific and pedagogical autonomy. Nevertheless, some broad learning outcome areas were defined by the Portuguese policy reform; however, it is assumed that these learning areas should not be treated separately but as components of a whole in the construction of professional knowledge. Thus the main learning outcome areas that characterise the teaching qualifications are as follows:

- *Specific subjects of each teaching area:* learning outcomes in the areas of knowledge that learners have to acquire, according to the demands of the school education curriculum; it should be stressed that the 2007 reform pays special attention to the reinforcement of the subject-based preparation of class teachers: the workload dedicated to specific teaching subjects is now greater (120 to 150 ECTS credits) than before and is distributed between the first and the second cycles.
- *Education:* learning outcomes relevant to all teachers' performances in classroom, in school, in the relationship with the community and in participation in the development of education policy.
- *Specific didactics:* learning outcomes related to the learning process and to the teaching of curriculum areas or subjects that individual teachers are responsible for, taking into account the suitability of this process for the specific nature of such areas or subjects, the learning objectives of the target school level and the age of the learners; this area has acquired an identity, being isolated from that of *Education*

- Create a safe and attractive school environment which is based on mutual respect and cooperation
- Teach effectively in heterogeneous classes of pupils from diverse social and cultural backgrounds and a wide range of abilities and needs, including special education needs,
- Work in close collaboration with colleagues, parents and the wider community,
- Participate in the development of the school or training centre in which they are employed,
- Develop new knowledge and be innovative through engagement in reflective practice and research,
- Make use of ICT in their various tasks, as well as in their continuing professional development,
- Become autonomous learners in their own career-long professional development" (Council of the European Union, 2007, p. C300/9).

For information on the new tasks of the teacher's role, see Campos (2005, 2006).

with the same workload (22 to 30 ECTS credits) in order to value the specificity of the teaching subject.
- *Teaching practice:* learning outcomes related to the capacity to use knowledge in concrete professional teaching situations and to analyse and evaluate these situations in order to make them suitable to a specific context.
- *Cultural, social and ethical:* learning outcomes related to the major problems of the world today, cross-curricular areas and the ethical and civic aspects of teaching.
- *Education research methods:* learning outcomes related to the principles and methods that allow teachers to adopt a research-based attitude in their specific teaching context[12].

4 Qualification acquired in a teaching context

Learning within a work context. The Council agreed to "endeavour to ensure that teachers hold a qualification…which strikes a suitable balance between research-based studies and teaching practice" and to "consider the adoption of measures aimed at raising…the degree of practical experience required for employment as a teacher" (Council of the European Union, 2007, p. C300/8). Reforms of initial teacher education in several European member states pay special attention to learning in the teaching context as an essential dimension in order to develop the professional competence of future teachers (Ministry of Education of Portugal, 2008, 88-118). In the Portuguese reform, the emphasis placed upon teaching practice, and in particular that supervised by qualified teachers, involves recognition of the importance of this unique and irreplaceable learning environment in acquiring teaching competence. Thus, teaching practice increases gradually from the beginning of the teacher education course, not as an isolated component but as an opportunity to mobilise and integrate a broad range of knowledge, competencies and attitudes in order to solve real issues in the classroom, in the school and in its relationship with the community. This component, which includes observation and

[12] The ECTS credits of each area in the subject-teacher programmes (master of 90 to 120 ECTS credits): *(i)* Specific subjects of each teaching area: (bachelor) + 5%; *(ii)* Education: 25%; *(iii)* Specific didactics: 25%; *(iv)*Teaching practice: 40%; the last two areas (Cultural, social and ethical and Education research methods) are included in the ECTS of areas *(ii)* and *(iii)*.

collaboration in teaching situations and supervised planning, as well as teaching and assessment inside and outside the classroom in a variety of contexts, involves between 50 to 70 ECTS credits in the case of class teachers and between 35 and 50 ECTS credits in the case of subject teachers.

Teaching practice assessment, an essential element of awarding a professional qualification. The relevance given to this component is so great that its final assessment has to take into account how well prepared the future teacher is to satisfy, in an integrated way, all teaching requirements. Success in the teaching practice component, thus assessed, is a precondition to be awarded a teaching qualification and failure in this component cannot be compensated by success in the more theoretical components.

Early career support (induction period). The Council of the European Union agreed to "Endeavour to ensure that teachers…have access to effective early career support programmes at the start of their career" (Council of the European Union, 2007, p. C300/8). The induction period of beginning teachers is being developed in several EU member states (Fransson & Gustafsson (eds.), 2008; Zuljan & Vogrinc, 2007; Eisenschmidt, 2008). In the recent reform of access to work in state schools (Portugal, 2007 a), it was decided that during the probationary year the teacher is given didactic, pedagogic and scientific support by a qualified teacher who has preferably had specialised training in curriculum organisation and development or pedagogic supervision and trainer training. Hence, it can be said that this reform establishes the provision of an early career support period (induction) for the professional development of new teachers[13].

Partnerships with schools and community institutions. The Council of the European Union agreed to "encourage closer links and partnerships between schools – which should develop as *learning communities* – and teacher education institutions" (Council of the European Union, 2007, p. C300/8). In fact, teaching practice and educational research activities in a school context imply that higher education institutions cannot provide teacher education programmes without establishing sustained

[13] However, as it is linked to the probationary year, the induction period does not involve all new teachers since in various situations some of them are exempt from the probationary year.

collaboration protocols with schools. The relevance of partnerships between higher education institutions and schools for career-long teacher professional development is being highlighted by teacher education policies which consider learning in the teaching context as an important component of such education (Snoek, 2008). Within the context of such partnerships, the Portuguese reform also expects higher education institutions to play an active role in improving teaching quality in these schools, responding to the in-service (including the early career support) and specialised training needs of schools and teachers. The quality criteria of such partnerships were also defined by this reform and compliance with them is required for higher education institutions to be able to obtain the state's authorisation to provide teacher education programmes.

Mobility in transnational teaching contexts for teacher professional development. The Council of the European Union agreed to "support mobility programmes for teachers, student teachers and teacher educators which are designated to have a significant impact on their professional development, as well as to foster better understanding of cultural differences and an awareness of the European dimension of teaching" (Council of the European Union, 2007, p. C300/9). The teacher education reform in Portugal foresees a programme of incentives for quality, innovation and mobility. Regarding practice in transnational teaching contexts, the incentives aim at promoting the mobility of teachers and student teachers whenever relevant to the development of teaching competencies in the area of the European dimension of education and training. These incentives can be seen as a complement to the Erasmus and Comenius EU programmes.

5 Quality development and quality assurance

The Council of the European Union agreed to: "ensure that provision for teachers` initial education, early career support and further professional development is co-coordinated, coherent, adequately resourced and quality assured"; "provide appropriate support for teacher education institutions and teacher educators, so as to enable these to develop innovative responses to the new demands on teacher education" and to "… ensure that those institutions (schools and HE institutions) provide coherent, high quality and relevant teacher education programmes

which respond effectively to the evolving needs of schools, teachers and society at large" (Council of the European Union, 2007, pp. C300/8-9). Beyond being a concern of higher education reforms in the framework of the Bologna Process, quality development and assurance of teacher education institutions and programmes also constitutes a specific dimension of teacher education reforms in several European member states (Eurydice, 2006). In the recent reform of the Portuguese initial teacher education system, a number of mechanisms are aimed at promoting and ensuring the quality of teacher qualification.

At education system level. A biennial follow-up report should be prepared with recommendations for promoting the quality of the teacher education system. Further, the government has committed itself to create a specific programme aimed at stimulating and funding projects promoting quality, innovation and mobility in the development of teacher education programmes.

At programme level. In relation to teacher education programmes, such mechanisms consist of the following:

- the teacher education curriculum has to be suitable to professional performance profiles and to the school education curriculum, contextualised and updated through consultation with all those interested in the quality of teaching qualifications: schools, professional and scientific associations, previous graduates etc.;
- student numbers are being limited according to the number and qualifications of teacher educators and mentors available in higher education institutions and partner schools, as well as to the capacity and quality of these institutions; and
- teacher education programmes have to be accredited as a Master's degree and as teaching qualification by the National Accreditation Agency[14], which has to achieve clarity with the Ministry of Education regarding professional accreditation.

Quality assurance of future teacher competence. Some of the most important requirements for the quality assurance of future teacher competence are the following:

[14] Agency to be set up within the context of the European System of Quality Assurance in Higher Education. A first specific attempt of accrediting initial teacher education programmes was taken in Portugal in the early years of this century; however this policy measure was cancelled following a government change (Campos, 2004).

- verification, before starting a Master's course, of the qualitative suitability of ECTS credits completed in subject-teaching areas for the requirements of the school education curriculum;
- assessment, before starting a Master's course, of mother tongue oral and written skills;
- success in the teaching practice component, indispensable for the awarding of a teaching qualification, depends on trainees fully demonstrating competence in satisfying the requirements of the teaching profession;
- passing national written exams (with a mark of at least 14 out of 20) before applying for employment in state schools[15], in order to check the future teacher's competence in the field of teaching subjects; and
- successfully completing a probationary year when starting a state school job in order to prove overall teaching competence.

The verification of the first three of the above requirements is the responsibility of teacher education institutions; the implementation of national examinations and of the probationary year is the responsibility of the Ministry of Education.

6 The challenges of implementation

We can conclude that the recent reform of initial teacher education in Portugal is in tune with the Bologna and European Union guidelines. It should also be pointed out that the main features of the Portuguese reform of initial teacher education are already aligned with the vision recently adopted by the *European Trade Union Committee for Education (*ETUCE, 2008) [16].

[15] This quality assurance mechanism of teaching qualifications, as with the following one, only involves teachers who wish to be employed by state schools and are, therefore, not part of the teacher education reform but part of the regulation of access to employment in state schools. In 2006/2007, only 15.6% of teachers were working in private education.

[16] "ETUCE advocates an initial teacher education at Master's level which:

- Provides in-depth qualification in all relevant subjects, including in pedagogical practice and in transversal competences
- Is research-based, has high academic standards and at the same time is rooted in everyday reality of the schools
- Includes a significant research component and produces reflective practitioners

Challenges at policy and institutional level. However, public administration and teacher education institutions face some major challenges in the appropriate implementation of these policy guidelines of initial teacher education. Successfully moving from an outlined system to innovations in the practices of policymakers, of teacher education institutions and partner schools, as well as of teacher educators and mentors, depends on how far such challenges are met at the policy and institutional level.

The main challenges faced at the policy level include:
- the creation of a governmental programme for stimulating and funding quality, innovation and mobility;
- rigour in defining student teacher numbers according to the number of qualified teacher educators and mentors;
- the development of an effective professional accreditation system; and
- the development of a true early career support period and of a demanding probationary year.

At the institutional level the following challenges can be pinpointed:
- raising teaching qualification from level 6 to research-based level 7 of the European Qualifications Framework;
- The development of a teacher education curriculum:
  - *social demand-driven more than only supply-driven and with the participation of the main stakeholders*
  - *focused on the role of teachers and learning outcomes rather than on a collection of individual academic subjects*
  - *simultaneously research-based and practice-oriented*
  - *in a lifelong life-wide perspective;*
- the development of mutual benefit partnerships between HE institutions and schools; and
- the certification of professional teaching qualification based on demonstrated teaching competence.

- Gives teachers the skills needed to exert a high degree of professional autonomy and judgment in order to enable them to adapt their teaching to the needs of the individual group of learners and the individual child or young person
- Offers the right combination between theory and pedagogical practice and benefits from partnerships between teacher education institutes and schools
- Encourages mobility of teachers within the different levels and sectors of the education system, provided the adequate re-qualification is acquired" (p. 8)

The challenge for implementation and European Union co-operation. The European Union's co-operation can be of great support in effectively facing all these challenges. In the "Education and Training 2010" work programme, in each member state the responsibility for achieving the shared goals agreed at European Union level belongs to national authorities. However, the Council also agreed to promote some forms of co-operation at the European level in order to support these authorities in national implementation efforts. Thus, according to the recent (November 2007) agreement among education ministers of EU member states, teacher education has to become *a transversal policy objective of the "Education and Training 2010"* work programme and of its successor. That is, European Union co-operation in this field may cover school education, vocational education and training and higher education as well as all teaching opportunities in lifelong learning. Further, in order to promote implementation of the policy priorities in teacher education outlined in the November Conclusions, the Council has invited the MS, with the support of the Commission, to "work together … within the framework of the open method of coordination…", promoting, in an integrated approach "*(i)* evidence-based knowledge relevant to teacher education policies, *(ii)* further initiatives on mutual learning, *(iii)* innovative teacher education projects and *(iv)* the mobility of teachers, teacher educators and student teachers" (Council of the European Union, 2007, p. C300/9). Finally, the Council has also made reference to the main instruments for fulfilling these European Union co-operation initiatives, namely: *(i)* those forming part of the open method of co-ordination*;(ii)* the Lifelong Learning Programme;*(iii)* the 7th Framework Programme for Research Development; and *(iv)* the European Social Fund. Promoting such European Union co-operation in the teacher education field demands the development and implementation of an integrated action plan which the European Commission, in collaboration with the member states' representatives, is surely doing[17].

[17] In this article, the main accent of the links made between the recent initial teacher education reform in Portugal and the Bologna Process as well as the Education and Training 2010 work programme guidelines centred on their concern with the *quality* of teaching qualifications. However, these processes are also concerned with the issue of the *comparability* of teaching qualifications in order to facilitate the mobility of teachers as workers in the European employment space. The quality, level and degree structure of teaching qualification are relevant components of such comparability. Nevertheless, they are not enough: the comparability of learning outcomes still remains (Campos, 2007; Zgaga, 2008). There is still the need in the field of teacher education to implement the 2005 European Union Directive on the recognition of professional

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The Teacher Educator: A Neglected Factor in the Contemporary Debate on Teacher Education

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ABSTRACT

Recent studies have identified that the teacher is the most important factor influencing the quality of education. Following this line of reasoning, it is likely to assume that the teacher educator is the most important factor influencing the quality of teacher education. Although many research studies and policy documents attempt to identify the qualities of teachers, only a few publications address the quality of teacher educators. This paper examines the contemporary European policy debate on the quality and status of teacher educators. Two issues will be addressed. Firstly, to what extent is teacher educator regarded as a profession? Secondly, what actions and measures are proposed to maintain or increase the quality and status of the teacher educator profession? Based on literature on professions and professionalism, a framework has been developed to guide our examination of European policy documents on teacher education to identify to what extent these documents express notions of teacher educators as professionals.

Key words: teacher, teacher educator, quality of education, teacher education policy, professionalism

1 Introduction

In recent debates on the quality of education, much attention has been paid to the quality of teachers since teachers are identified as the most important factor influencing the quality of education (Abbott, 1988; Hattie, 2003; Barber & Mourshed, 2007). The quality of teachers has a larger impact on the learning of pupils than the quality of the curriculum, the teaching methods, the school building or the role of

parents. As a result, policies with respect to teacher quality are receiving significant attention. Although the European Commission's jurisdiction is limited in the area of education, the Commission has recently paid considerable attention to the quality of teachers, thus stimulating national governments to invest in the improvement of teacher quality, for example by exchanging policies and practices across Europe (see, for example, Snoek, Uzerli & Schratz, 2008).

In these policy debates there is a strong awareness that the quality of teachers depends on the quality of their teacher education and this is reflected in recent European policy documents published by the European Commission (European Commission, 2005; 2007) or the European Council (European Council, 2007). As an addition to these policy documents, together with the OECD the European Commission has initiated research such as the Teaching and Learning International Survey ("TALIS") that investigates the learning environment and the working conditions of teachers in schools. This policy attention to the quality of teachers and teacher education is reflected on national levels. Recently, several European countries have raised the level of initial teacher education to the master's level and many European countries have developed explicit standards for the teaching profession. National governments feel a strong responsibility regarding the quality of education and therefore regarding the quality of teachers.

Teacher standards or professional profiles play an important role as part of this responsibility. "The overarching priority is for countries to have in place a clear and concise statement or profile of what teachers are expected to know and to do. This is necessary to provide a framework to guide initial teacher education, teacher certification, teachers' ongoing professional development and career advancement, and to assess the extent to which these different elements are being effective" (OECD, 2005, 131).

Given the contemporary European attention to the quality of teachers and teacher education, it is interesting to see which parallels exist between teachers and teacher educators. When the general consensus is that teachers are the most important in-school factor influencing the quality of their pupils' learning, it seems appropriate to assume that teacher educators are an important factor influencing the quality of the learning of their student teachers. Following this line of reasoning, it seems reasonable to assume that in the European policy debate considerable attention is being paid to the quality for teacher educators.

If the teacher educator plays a key role in the quality of teacher education, then the issue of the professionalism of the teacher educator is becoming an issue of paramount importance. Recent publications (see, for example, Loughran 2006; Swennen & Van der Klink, 2009) argue that the professionalism of the teacher educator is best served by perceiving teacher educators as a specialised professional group and that teacher educators need specialised professional activities in order to fulfil their complex tasks (Smith, 2003). The emergence of the teacher educator profession is reflected in the establishment of national and international professional associations like the American Association of Teacher Education ("ATE"), the Association of Teacher Education in Europe ("ATEE") and the Dutch Association for Teacher Educators ("VELON"), which can be regarded as an indication that teacher educators themselves see their work as a profession.

This paper discusses to what extent European policy documents address the quality and professionalism of teacher educators as a topic of policy concern. The next sections elaborate on the issue of what constitutes a profession, on emerging new professions and professionalism and on measurements and actions to enhance professionalism. After a brief description of the methodology applied the findings will be presented, followed by some conclusions and recommendations for further research.

2 Characteristics of professions and professionalism

Although the English word "profession" may refer to occupations in general, the word was originally used for high status professions like medicine, law or architecture. Members of these prestigious professions and outsiders as well attach certain, positive, characteristics to these professions. Here we briefly highlight the five main features of the classical view of professions.

A monopoly of members of the profession is the foremost important feature of high status professions in the classical view of professions: "Those specialisations which embody values held by the public at large, the state or some powerful elite are given the privileged status of monopoly, or control over their own work. This monopolistic control is the essential characteristic of ideal-typical professionalism from which all else flows" (Freidson, 2001, 32). A second feature concerns the

prominent role of the profession regarding the entry requirements and the further professional development of individual members. Professions also have the power to judge, and subsequently even to exclude, members who do not adhere to the professional standards and ethical code. The third characteristic of professions is that they have an ethical code that has at least two important aims. First, it is a means to win the trust of the public and public bodies (often governments) that have the power to license the profession and its members. Trust of the public is an important aspect of the status of professions as their existence predominantly depends on service to the public (Evetts, 2006). The second aim of the ethical code is to serve as a guideline for good conduct of members of that particular profession. The fourth important characteristic of classical professions is academic knowledge (Abbott, 1988), formal knowledge or technical knowledge (Goodson & Hargreaves, 1996). "Academic knowledge legitimises professional work by clarifying its foundations and tracing them to major cultural values. In most modern professions, these have been the values of rationality, logic, and science. Academic professionals demonstrate the rigor, the clarity, and the scientifically logical character of professional work" (Abbott, 1988, 54). Finally, a fifth feature of the classical professions is the freedom of establishment. Members do not have a job contract but are independent and self-employed.

It goes without saying that teaching and teacher education have never been regarded as classical professions. Teaching, like nursing, social work and librarianship, was once called a semi-profession (Etzioni, 1969) or sub-profession (Marcus, 1973). Members of semi-professions are less autonomous than those of the classical professions and they work within organisations and institutes like schools, hospitals and libraries that are characterised by bureaucracy and hierarchy. The autonomy of teachers and schools is further limited by the influence of governments that have, depending on the rules and regulations in specific countries, more or less influence on the content of the curriculum and the pedagogy of the teachers (see Snoek & Žogla, 2009). In addition, the academic levels of the teaching and teacher education professions are limited. It is still relatively rare for teacher educators to be research-trained and/or to have carried out postgraduate studies. In particular, this is the case among teacher educators working with pre-school and primary school teacher education (Erixon, Frånberg & Kallós, 2001).

Over the last few decades the term "new professionalism" has been broadly used to refer to various kinds of occupations that cannot be regarded as professions in the classical sense, such as teachers (Evans, 2008; Goodson & Hargreaves, 1996, Robertson, 1996). Although the meaning of the "new professionalism" concept is somewhat blurred and varies from author to author and context to context, there are some general characteristics, which will be outlined here.

One general characteristic is that "new professionalism" is connected to discourses concerning improvements in the quality of work and a stronger emphasis on output requirements. In most European countries these changes are initiated by governments and not by the professionals themselves. As a consequence, most teachers look at the concept negatively. New professionalism was linked to "labour flexibility and deregulation of schools" and the discourse was about "quality, outcomes, professionalism, flexibility, work teams, competency" (Robertson, 1996).

A second characteristic of new professionalism "involves a movement away from the traditional professional authority and autonomy towards new forms of relationships and collaboration with colleagues, students and their parents" (Hargreaves, 1994, 424).

A third characteristic of new professionalism is accountability. Assessments of pupils and students are frequently conducted to gain detailed insights into their learning outcomes. Further, teachers have to explicate how their teaching contributes to achieving the intended learning outcomes.

A fourth feature is the emphasis on improvement and innovation, although professionals seem to differ in this respect. Professionals such as business consultants are considered to be more in the forefront of the continuous renewal of concepts, methods and tools, while some professionals, such as teachers, tend to rely on routines even if these routines are not quite appropriate anymore. However, when teaching is seen as a dynamic and innovative profession teachers will reflect on their own practice and contribute to the improvement and innovation of the profession.

A fifth feature concerns the nature of the knowledge base, which need not only be formal and academic like in the classical professions but can also be the result of experience and reflection.

A sixth feature concerns the increased attention to the professional development of professionals throughout their careers. It is generally accepted that in our knowledge-intensive society lifelong learning is becoming essential for one's career-long professional development.

A seventh characteristic concerns the implementation of standards describing competencies and qualifications of beginners and expert members of professions. An example of standards for different stages in teachers' careers is developed by the English Training and Development Agency for Schools (TDA, 2007). The frequent use of the word "professional" indicates the importance given to the further professional development of teachers.

It is clear that not all of these features apply fully to teacher educators.

3 Actions and measurements to increase the professionalism of teacher educators

The analysis of European policy documents addressing the professionalism of teacher educators requires a reference frame. Based on our analysis of the characteristics of classical professions and new professionalism and on the work of Loughran (2006), Lunenburg & Willemse (2006), Murray & Male (2005), Swennen & Van der Klink (2009), Smith (2003), Van Velzen, Van der Klink, Swennen & Yaffe (2010), we identified the following possible actions and measurements that can support policies with respect to the professionalism of teacher educators:

1. identifying the professionalism of teacher educators as a matter of concern;
2. suggesting proposals for improving professionalism;
3. initiating research to investigate the state of the art;
4. launching committees and advisory boards;
5. developing and implementing national legislation on quality requirements for teacher educators;
6. developing accountability systems;
7. paying attention to teacher educator professionalism in the accreditation procedure of teacher education programmes;
8. implementing selection criteria for entry into the profession;
9. offering formal education (courses or an entire master's programme) for new teacher educators;

10. creating induction programmes for teacher educators;
11. ensuring resources and requirements for continuous professional development;
12. taking measures to enhance the careers and mobility of teacher educators;
13. implementing an ethical code for teacher educators;
14. encouraging participation in (international) networks;
15. implementing standards for teacher educators; and
16. developing a practical knowledge base for teacher educators.

What these 16 actions and measurements have in common is that they all contribute to a further improvement of the teacher educator profession. The first seven items on the list are typically actions and measures undertaken by governmental bodies, while the others are more likely to be conducted by the management of teacher education institutes or by teacher educators themselves. For example, the development of standards for teacher educators in the Netherlands was primarily the responsibility of VELON, the Dutch Association of Teacher Educators (Koster & Dengerink, 2001).

The issue of how to position teacher educators in the discourse on new professionalism has not been fully addressed and in our view deserves more attention. This study intends to address this issue and contributes to our understanding of the teacher educator profession by answering two questions:

1. What features of the professionalism of teacher educators are mentioned in the selected European documents?
2. Which measures and actions are proposed at the European policy level to encourage the professionalism of teacher educators?

4 Methodology

To answer both questions policy documents have been analysed to search for information on the status of this profession and for actions and measurements to improve teacher educators' professionalism. The study was restricted to the main European policy documents that consider the issues of teacher education from a European perspective. The following six documents were regarded as influential in the contemporary debate on these issues:

- Teachers Matter (OECD, 2005). This OECD publication addresses issues that are essential when it comes to attracting, developing and retaining effective teachers.
- Common European Principles for Teacher Competences and Qualifications (European Commission, 2005). This document from the European Commission is developed in the context of expert groups on themes from the Education & Training agenda of the Commission. The document identifies common principles with respect to teacher competencies and qualifications, aiming to support member states to develop their own teacher policy.
- Improving the Quality of Teacher Education (European Commission, 2007).
- The Council Conclusions (European Council, 2007) which summarises the main findings of some previous documents and formulates directions and conclusions for the further development of teacher education in Europe.
- The Quality of Teachers (ATEE, 2006). In this policy paper the Association of Teacher Education in Europe contributes to the debate on teacher standards through seven recommendations on the identification of indicators for teacher quality.
- Teacher Education in Europe (ETUCE, 2008). This policy paper from the European Trade Union Committee for Education presents ETUCE's vision of teacher education in the 21st century.

The procedure for the analysis consisted of a search within the documents using teacher educator(s) as search terms. Fragments were selected that contained these search terms and then they were examined by at least two researchers. For this purpose, a classification scheme was developed to assist the researchers in sorting the text fragments. This scheme consisted of the actions and measures as discussed in the previous section.

5 Findings

With regard to the first research question, the analysed documents only mentioned four statements concerning the current status of the profession of teacher educators. Yet a closer inspection of these four statements revealed that these statements did not really describe the current status of the profession, but were in fact statements about

desired developments for the coming years. Thus the documents did not offer any information about the current status of the teacher educator profession.

With regard to the second research question, Table 1 displays an overview of the findings of the analysis of the international documents. One of the documents "Common European Principles for Teacher Competences and Qualifications" (2005) did not provide any information on teacher educators and is therefore excluded from the table.

Table 1. *Suggested actions and measurements expressed in European policy documents to enhance the professionalism of teacher educators*

Actions & Measures	**Improving the quality of teacher education**	**Council conclusions on the quality of teacher education**	**Teachers Matter**	**ATEE policy paper on the quality of teachers**	**ETUCE policy paper on teacher education**
1. Expressing concerns			pp. 108, 136		Entire document
2. Suggesting proposals		pp. 3-4			
3. Initiating research					
4. Advisory boards, committees					
5. Legislation					
6. Accountability systems					
7. Accreditation of Teacher Education programmes			p. 237		
8. Selection criteria					pp. 15, 34-36
9. Formal courses					
10. Induction programmes					
11. Resources and requirements CPD					pp. 34-36, 45

Table 1. Continue

12. Career and mobility		pp. 3-4			p. 50
13. Ethical code					
14. Professional networks	p. 15			p. 8	pp. 25, 34-36
15. Standards	p. 15			p. 8	pp. 34, 59
16. Practical knowledge base					pp. 36,60

Several documents clearly express concerns regarding teacher educators' professionalism. Especially the arguments in the ETUCE policy paper demonstrate that European trade unions feel a strong need to improve the quality of the staff of teacher educators across Europe. The OECD report expresses concerns that can be found in several reports:

> *A number of Country Background Reports expressed concerns about the approaches used in teacher education programmes. For example, the Norwegian report stated that "teacher educators have difficulty in giving their teaching a practical focus and relating pedagogical competence to the individual subject. Subject teachers say that students often do not understand that they are receiving instruction in didactics, while students have difficulty in seeing how what they learn in different subjects is linked to what they need to know in a practical, teaching situation." Norwegian teachers express similar concerns; research indicates that initial teacher education is not highly valued and that teachers commonly perceive a gap between theory and practice in teacher education (OECD, 2005, p. 108).*

The ETUCE policy paper is the only document that clearly suggests actions related to the entry of the teacher educator profession:

> *Teacher educators should be able to provide student-centred education in close cooperation with other colleagues. As outlined in the previous chapter, the ETUCE emphasises that all teachers should be educated to Master's level in higher education and, of course, teacher educators must have the qualifications required to be able to teach at that level (ETUCE, 2008, p. 34).*

While not clearly expressed, the ETUCE policy paper implies that if teachers need a master's degree then teacher educators need to possess a doctoral degree in order to be equipped to teach at master's level. The

ETUCE policy paper is also the only document that clearly addresses the theme of the further professional development of teacher educators:

> *In order to meet the demands placed on the profession, all teacher educators – including mentors at schools –should be given the opportunity to undertake proper lifelong learning of their own. Ongoing professional development is a must. Both time and financing should be made available. Agreements should be reached to allow sabbatical years for professional development. This must include provision for qualified replacement staff (ETUCE, 2008, p. 36).*

Actions for career and mobility are expressed in two documents: the ETUCE policy paper and the document of the European Council, respectively. Both documents emphasise the need to perceive career and mobility not to a restricted national level but rather on a European scale:

> *Support mobility programmes for teachers, student teachers and teacher educators which are designed to have a significant impact on their professional development, as well as to foster better understanding of cultural differences and an awareness of the European dimension of teaching (Council Conclusions, 2007, p. 4).*

Participating in professional networks is regarded as a strong impetus to improve teacher educators' professionalism. Text fragments regarding the need for networking were discovered in three documents that all point to the same advantages of networking as is clearly presented in the following fragment from the report of the Commission "Improving the quality of teacher education":

> *Links between teacher educators, practicing teachers, the world of work and other agencies need to be strengthened. Higher Education institutions have an important role to play in developing effective partnerships with schools and other stakeholders to ensure that their Teacher Education courses are based upon solid evidence and good classroom practice (Commission of the European Communities, 2007, p. 15).*

The same three documents also suggest actions on the level of implementing standards for teacher educators and their suggestions are very comparable.

> *If we want teacher educators to be role models for their student teachers, then teacher educators should be explicit about their own professional quality, the indicators of this quality and the way they use them to develop*

> *professionally in a systematic and self-regulated way. In this respect, teacher educators carry a heavy responsibility, as the quality of teacher educators affects not only the quality of teacher education and the learning of the student teachers, but also the attractiveness and the quality of the teaching profession and therefore the quality of the education that is provided to pupils.*
>
> *The ATEE, as a professional community of teacher educators in Europe, will continue to stimulate communities of teacher educators to develop indicators of teacher educator quality within local or national contexts and to exchange such between their communities (ATEE, 2006).*

All three documents imply that the development of standards is not a responsibility of nation states but that teacher educators themselves must take on the task of formulating standards for their own profession.

Finally, only one document makes reference to teacher educator quality as a possible criterion for the accreditation of teacher education programmes. The OECD report includes in its "framework for informing teacher policy" (OECD, 2005, 237) the issue of the accreditation and evaluation of initial teacher education programmes that also touch on the credentials and backgrounds of teacher educators.

6 Conclusions and discussion

In this paper we presented the findings of our analyses of policy documents about teacher education on an international level. The results indicate that references to teacher educators and their professionalism are not only limited but they also do not present the actual status of the professionalism of teacher educators. The only actual reference to teacher educators' professionalism is phrased in terms of wishes and needs for teacher educators to further enlarge their professionalism. Therefore, the findings reported here are limited to our second research question concerning measures and actions to encourage the professionalism of teacher educators.

It is clear from the findings that the policy documents pay limited attention to teacher educators and their professionalism. If teacher educators are mentioned at all, it is to express concerns about their quality. With the exception of the ETUCE document, no concrete

suggestions have been made about improving the professionalism of teacher educators or to encourage their professional development. Various studies show that little attention is being paid to teacher educators in general (see, for instance, Smith, 2003; Swennen & Van der Klink, 2009) and that there should be more research into their learning and development (Loughran, 2006, Cochran-Smith, 2003).

The study presented here is a small-scale study. However, we made a thorough search for policy documents that were published in the European policy context and we are not aware of any other documents that play a significant role in the contemporary European debate on the quality of teacher educators.

To ensure an analysis that is as reliable as possible two researchers searched for text fragments about teacher educators and two researchers assigned the text fragments to items related to professionalism and the actions and measurements. The meaning of the outcomes was discussed by all three authors but the scarcity of text fragments mentioning anything about teacher educators limited the scope of the discussion.

The findings reported in this chapter encourage us to continue our research on teacher educators' professionalism in policy papers. As a next step we intend to focus on policy documents on the level of individual European member states that will allow us to investigate how national policy documents contribute to the professionalism of teacher educators in various countries.

We conclude that hardly any reference is made to teacher educators' professional development in European policy documents, which we find quite disturbing since there are good reasons to assume that the quality of teacher educators is one of the most prominent factors predicting the quality of teachers and thus indirectly contributes to the quality of our education systems. It is important that policymakers, researchers and teacher educators work together closely to develop concepts for the induction and further development of teacher educators as a specialised professional group.

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Part 2

REGIONAL PERSPECTIVES AND SYSTEMIC ISSUES for Teacher Education in Europe

Challenges to Nordic Teacher Education Programmes

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ABSTRACT

This article resumes a comparative study on the Nordic teacher education programmes in Denmark, Finland, Iceland, Norway and Sweden (Nordisk Ministerråd/Nordic Council of Ministers, 2008). By focusing on that part of the study occupied with the structure and organisation of Nordic teacher education programmes, it tries to find explanations for the fact that only Finnish teacher education does not suffer from a falling number of applicants, high drop-out rates and low retention rates. It is claimed that the strong emphasis on specific professional elements and subjects in the Finnish teacher education programme (pedagogical studies, quality of practice teaching, research base) and its strong focus on training future teachers for the teaching profession and a professional community play an important role with respect to recruitment and the low drop-out rates.

Key words: teacher education programmes, teaching profession, recruitment, retention, internationalisation

Although in many respects Nordic countries show great similarities, they are very different when it comes to teacher education. Their teacher education programmes are organised differently with regard to length, specialisation and location, they are structured differently with regard to subjects and academic elements, and they are regulated differently. Nevertheless, teacher education programmes in the Nordic countries are largely fighting the same kinds of problems but, in most cases, Finnish teacher education stands out as an exception.

The point of departure for the comparative analysis in this article lies in the fact that all Nordic countries except Finland are facing problems with recruiting a sufficient number of suitable students for their teacher education programmes. The Nordic countries – again with Finland as an

exception – are also struggling with low retention rates and long completion times. The challenges to Nordic teacher education programmes presented in this article are pointed out on the assumption that factors which are common to the Nordic countries cannot be explanatory variables with regard to their differences. However, with respect to those factors which are different the assumption is that they can be divided into two categories of explanatory and non-explanatory variables depending on whether these differences play an active part in relation to recruitment, retention and completion.

We will especially focus on those subjects within teacher education programmes that are specifically directed at professional use, i.e. educational science (pedagogical studies), subject matter didactics, practice teaching, and the coupling of theory and practice. We want to compare the weighting of these subjects to see how they fit together with the academic subjects. The reason is that these subjects make the education stand out clearly as a *teacher* education, and because it is in the weighting of those subjects that the explanation for solutions to the problems of teacher education is often sought. In addition, the degree of internationalisation of Nordic teacher education programmes and contemporary challenges for schools in Nordic countries will be examined.

1 Recruitment

The problem of recruitment is twofold. On one hand, the number of applicants – with Finland as an exception – has dropped over a number of years while, on the other hand, it has also been difficult to attract good students. In addition, the teacher education programmes suffer from high drop-out rates not least with regard to students with low entry grades.

In Denmark the number of applicants (the 1st priority) for teacher education for primary and lower secondary education (1-9 (10)) went down by 37% from 2004 to 2007.[1] This trend continued in 2008, with the decrease since 2004 being 42%. This fall comes after a ten-year period of

[1] Unless otherwise mentioned, the figures are taken from (Nordisk Ministerråd/ Nordic Council of Ministers, 2008).

a relatively stable and high number of applicants. Between 2004 and 2007 Iceland witnessed a 40% decrease and it is thereby the Nordic country with the biggest drop. In the same period, Norway experienced a 22% fall in applicants (allmennlærerutdanning). However, in 2009 this decrease turned into an increase of 35% in relation to 2008 (Samordna opptak, 2009). In Sweden the number of applicants went down by 22% in the 2004-2007 period, although this number includes teacher education for primary and secondary education (1-12). Only Finland has a high and stable number of applicants. In 2007 the country had 6,296 applicants of whom 892 were accepted, which corresponds to 14%. The general pictures of recruitment for teacher education in the Nordic countries are quite similar and show a strong decline in applicants over the last five years.

As mentioned, the Nordic teacher education programmes are not only facing a decreasing number of applicants. They also suffer from high drop-out rates and low completion rates, again with some variation between the countries. In Denmark and Norway the drop-out rate is 35%, which is also the level in Sweden following the teacher education reform of 2001 (Statens Offentliga Utredningar (SOU), 2008, p. 54). In Iceland the drop-out rate is 20%.[2] It is a general tendency that a substantial number of the students who drop out do so during the first years of the programmes.

Studies in Denmark and Norway show that students' grade-point average at the time of admission is of major importance for success in completing the studies. The higher their grade-point average, the greater their probability of completing the studies; the lower their grade-point average the greater their probability of dropping out (Næss, 2006). In Denmark and Norway the grade-point average has been falling over a number of years. Since the middle of the 1990s teacher education students in Denmark have had a lower grade-point average than their high school cohort as a whole, and in addition the average for student teachers as a tendency is decreasing (Andersen, 2008). Today, in some Nordic countries nearly all qualified applicants are accepted.

Again with Finland as an exception, teacher education in the Nordic countries is facing a triple challenge regarding recruitment: first to

[2] There is no central specification of a drop-out in Finnish teacher education.

attract more students, second to attract better students, and third to retain the students admitted.

Against this background it becomes interesting to look more closely at the differences between the teacher education programmes of Finland and the other Nordic countries with regard to their organisation, quality and status to seek possible explanations for the evident differences in their attractiveness. This is done while acknowledging that such factors are not the only factors accounting for what students choose as a career, and that factors related to the labour market situation also play a role. The scope of this article is the structure and organisation of Nordic teacher education programmes, which differs from the focus of the OECD study *Teachers Matter,* which mainly pays attention to career choices, challenges and demands concerning teachers in contemporary schools, employment issues and the question of retaining effective teachers (OECD, 2005). We admit, of course, that it is debatable to assume that one country's teacher education programme should be modelled by other countries simply because it is not challenged by recruitment problems. However, we think that such a comparison will generate tentative explanations that can help dismantle myths about what works, contribute to a (more) realistic picture of possible advantages, and give hints about where to start further efforts and research activities. The factors we will look more closely at are pedagogical studies (educational science), subject matter didactics, teaching practice, the connection between theory and practice, and the main subjects.

Pedagogical studies

Pedagogical studies (educational science) are traditionally seen as the glue of teacher education, guaranteeing its cohesion and they are also seen as a strong element in shaping the identity of teacher professionals. The educational science subjects are considered to be the subjects that distinguish teacher education from being only a continuation of high school or from subject-based bachelor and master's studies.

In Finnish primary teacher education (1st-6th grades) the volume of educational science subjects is quite large, namely 120 ECTS credits, and at least 60 ECTS credits in lower secondary teacher education (7-10). Amongst the Nordic countries, the volume of educational science subjects is lowest in Norwegian and Danish teacher education.

Table 1. *Extent of pedagogical studies*

	ECTS credits
Denmark	33
Finland	120 min. 60
Iceland	50
Norway	30
Sweden	No national regulation

In the debate on the size of educational science subjects in teacher education, two opposing considerations or interests which are difficult to unite have emerged. On one hand, we see an interest in the polyvalence of teacher education programmes, i.e. their ability to connect with other educational programmes. This interest is in favour of strengthening academic subjects at the expense of educational science subjects, which would also increase the possibility of developing consecutive teacher education programmes. On the other hand, we see an interest in teacher education focusing on its professional aspects as well as on teaching practice. This interest is in favour of strengthening the educational science subjects. The argument is that an education based on academic subjects does not necessarily provide student teachers with the best teaching competence. Contemporary teacher education research clearly agrees that students taught by teachers who are able to combine subject matter knowledge with subject matter didactical knowledge and competence achieve the best student outcomes (Darling-Hammond & Brasford, 2005; Helmke & Weinert, 1997). In this respect, integrated teacher education programmes seem to be the most efficient.

Finnish teacher education has maintained pedagogical studies as a strong and extensive professional element. Other Nordic countries have strengthened elements less specific to the profession in their educational programmes, now and then at the expense of educational science subjects. In a proposal for new teacher education in Norway it is suggested to strengthen pedagogical studies. Except for giving the subject a new name, *Pedagogy and Knowledge of Students* (Pedagogikk og elevkunnskap), it would be achieved by underlining pedagogical studies as the scientific basis of the teacher education programme and by assigning 60 ECTS credits to them (Kunnskapsdepartementet, 2009).

Subject matter didactics

Subject matter didactics is closely related to pedagogical studies. All Nordic teacher education programmes stress the importance of subject matter didactics, and in all programmes subject matter didactics is integrated into the academic subjects.[3] It is supposed that the integration of subject matter didactics in the main subjects and assigning a substantial amount of time to it is a major contribution to making student teachers better educators in their main subjects: not experts in subjects, but experts in *teaching* subjects.

Table 2. *Extent and placement of subject matter didactics*

	ECTS credits	Placement	Content
Denmark	Not specified	Integrated into the main subjects	Learning outcomes are integrated into the subject descriptions
Finland	Not specified	No national regulation	Integrated into the study paths and specialisations
Iceland	Not specified	Integrated into the main subjects	Development of teaching competences in the main subjects
Norway		Integrated into the main subjects	No descriptions exist of learning outcomes in subject didactics
Sweden	No national regulation	Integrated into the study paths and specialisations	No descriptions exist of learning outcomes in subject didactics

Teaching practice

On one hand, it is said that teacher education might be able to attract more students if it were made more practice-oriented and if practice had a greater (not to say great) extent in teacher education programmes. In a number of studies, among others a recently published Danish study, student teachers express the opinion that practice plays too modest a role in the teacher training programme. They would like a more practice-oriented programme with more practice teaching. This is also an often heard reason for dropping out (Jensen, Kamstrup, & Hasselmann, 2008). At the same time, another recently published

[3] At Åbo Akademi, Vasa subject matter didactics has a volume equivalent to 50% of the first main subject and 20-40% of the second main subject.

Danish study shows that potential applicants choose not to take teacher education because they see it as too unchallenging. They consider the academic level too weak and not sufficiently anchored in research knowledge; they think that teacher education is for those who have no other choice (CapacentEpinion, 2008).

Research which does not ask actual and potential student teachers about their opinions, but focuses on what characterises teacher education in countries with high-performing school systems defined by the PISA studies points out that those top-performing countries are able to recruit student teachers from the top 30% of each cohort graduating from high school, in Finland even from the top 10% (Barber & Mourshed, 2007, p. 16). In other words, you might say that there is a close correlation between student quality and the quality of the compulsory school system.

Nevertheless, it is a widespread assumption that teacher education could benefit from being made more practice-oriented (e.g. longer periods of practice teaching or training posts) and that this in itself would contribute to an increase in recruitment. However, studies and evaluations in and of Nordic teacher education programmes show that it is mostly weak students who express a demand for more practice in teacher education; strong students want a firm theoretical anchoring (CapacentEpinion, 2008; EVA, 2003; Högskoleverket, 2005; NOKUT, 2006).

Finnish teacher education, which is a five-year programme, has less practice teaching than any other Nordic teacher education programme (5-7%). The mentors are well educated and practice teaching takes place at specialised practice schools. Danish teacher education, which is a four-year programme, has the most practice teaching (15%), followed by Iceland. Unless you want to attract weaker students, there is no evidence for increasing the size of practice teaching; but more likely for strengthening its quality, including the coupling between theory and practice.

Table 3. *Volume of teaching practice*

	ECTS credits	Weeks	Average per year	
Denmark	36	24	9 ECTS credits	6 weeks
Finland	16-20		4 ECTS credits	3-4 weeks
Iceland	24	12	8 ECTS credits	4 weeks
Norway		20-22		5-5½ weeks
Sweden	min. 30	20		

The connection between theory and practice

Teacher education is often conceptualised as a two world education: On one side, the world which is related to the teacher training institution and, on the other, the world which is related to the practice school. Traditionally, teacher education has largely left it up to the students to take responsibility for the integration of the two worlds. Evaluations of the Danish, Swedish and Norwegian teacher education programmes, which took place in the 2003-2006 period, all showed that this is a hazardous strategy. While the connection between theory and practice was found to be far too weak, it was recommended to establish proper connection mechanisms *in* the teacher education programmes. All Nordic countries are aware of the problem and pay attention to it, but it seems that Denmark has gone the furthest in the sense of establishing proper structures for connecting theory and practice.

Table 4. *Connecting theory and practice*

Denmark	Structures for coupling
Finland	Central position in teacher education
Iceland	Declaration of intent
Norway	No structures for coupling
Sweden	Exam as a coupling element

Main subjects

It is difficult to compare the volume and number of main subjects in the Nordic teacher education programmes because in many of them it is left to local decision-making. Generally speaking, there are major differences in volume and number between the Nordic teacher education programmes.

Table 5. *Volume and number of main subjects*

	ECTS credits	Number
Denmark	144	2 or 3
Finland	120 min. 170	2 2 or 3
Iceland	80 70	
Norway	min. 160	Varies
Sweden		No national regulation

The trend in Nordic teacher education, taking Finland as a model, is specialisation in subjects as well as in age levels. Finnish teacher education has for many years been age-differentiated in class teacher education (klasslärare) for primary education and subject teacher education (ämneslärare) for lower secondary education. The class teacher education typically attaches importance to educational science while the subject teacher education attaches importance to the main subjects.

Age specialisation was introduced in Danish teacher education by a reform in 2006 (Undervisningsministeriet, 2006). The main subjects Danish language and Mathematics must be chosen at either primary (1-6) or at lower secondary (4-9) level, with some overlap.

In Sweden an account of teacher education from 2008 advocates two different teacher education programmes: primary teacher education (grundlärare; 1-6) including four streams (preschool teacher, teacher for the youngest years (0-3), teacher for the middle years (4-6), and after-school centre teacher) and secondary teacher education (ämneslärare; 7-12) also including four streams (teacher in common subjects (7-9), teacher in common subjects in high school and adult education, teacher in vocational subjects in high school and adult education, and teacher in aesthetic subjects) (Statens Offentliga Utredningar (SOU), 2008).

A 2009 report from the Norwegian parliament on the reform of teacher education also supports age specialisation. As in Sweden, it is proposed to divide teacher education into two programmes, one for primary (1-7) and one for lower secondary (5-10) with an overlap in the middle. Subjects aimed directly at the profession as a teacher (pedagogical studies, subject matter didactics, teaching practice and the bachelor

thesis) are supposed to be shared by both programmes (Kunnskapsdepartementet, 2009).

2 Internationalisation

The Bologna Process

The Bologna Process takes its name from the declaration signed in 1999 by 29 European countries in Bologna. Today the process encompasses 46 European countries. Its overall objective is to create an open area for higher education in Europe that will enable students and staff to move freely between European education institutions and between national labour markets. The declaration sets out 10 goals, two of which may be seen as particularly challenging for Nordic teacher education programmes:

- Adoption of a system of easily readable and comparable degrees in order to promote European citizens' employability and the international competitiveness of the European higher education system.
- A quality assurance system which is accordance with the *Standards and Guidelines for Quality Assurance in the European Higher Education Area*.

All Nordic countries are currently working to adapt their teacher education programmes to the Bologna Process. However, the process of adaptation is being carried out quite differently, at different speeds, and also at different levels of ambition.

The first challenge concerning a uniformly organised degree system deals with the structure of teacher education programmes partly by describing the programmes and their elements in the European Credit Transfer and Accumulation System (ECTS), and partly by describing learning outcomes in relation to national qualification frameworks. Such frameworks refer to the overall European qualification framework developed within the Bologna Process. The qualification framework describes learning outcomes from three categories (knowledge, skills and competencies), and positions teacher education programmes in relation to three levels of higher education: the first (C1), second (C2), and third (C3) cycles.

The ECTS credit system as a numerical statement of the total work load of a given programme has been introduced in all Nordic countries. Further, subjects and courses are defined by ECTS credit points, but largely without changing the existing organisation of subjects. Sweden has not employed ECTS credit points, but instead has hp-points which have the same value as ECTS credits. The Nordic programmes are only modestly structured and organised in modules, which makes credit-transfer and mobility difficult.

All Nordic teacher education programmes have prepared or are on their way with descriptions of learning outcomes.

Often the breakdown in cycles is described as a 3+2+3-structure, which for teacher education, including as a maximum the two first cycles, means a 3-year bachelor (C1) and a 2-year master (C2). The Bologna Process states, however, that first cycle (C1) qualifications may typically include 180-240 ECTS credits, while second-cycle qualifications normally carry 90-120 ECTS credits, but the minimum requirement should amount to 60 ECTS credits at second-cycle level.

All Nordic teacher education programmes have adapted to or are in the process of adapting to this structure. This has been done in different ways. In Finland and (from 2011) Iceland, teacher education to primary and lower secondary education (1-9 (10)) is a 3+2 programme where teacher competence is obtained at second-cycle (C2) level (300 ECTS credits). In Denmark, teacher education is a first-cycle (C1) professional bachelor degree of 4 years' duration (240 ECTS credits). In Norway, teacher education is also is a first-cycle (C1) degree consisting of a 3-year bachelor plus one extra year (240 ECTS credits). The proposed new teacher education programme in Norway suggests that 800 student positions should be established at master level (C2) before 2014 (Kunnskapsdepartementet, 2009). In Sweden, too, teacher education is a first-cycle (C1) or a second-cycle (C2) programme, depending on which year groups it aims at.

All Nordic countries have introduced quality assurance systems (the second challenge) in accordance with the *Standards and Guidelines for Quality Assurance in the European Higher Education Area*. Accreditation systems have also been introduced for individual education

programmes in all countries except Norway where accreditation is done at an institutional level.

EU efforts

The EU considers it necessary that all teachers are graduates from higher education institutions, that all teachers are supported to continue their professional development throughout their careers to the highest level, i.e. through all three cycles, and that teacher education is based on an academic and scientific basis which promotes evidence-based practice (Commission of the European Communities, 2007; European Commission, 2005).

These EU ambitions are met by almost all the Nordic countries. In all Nordic countries apart from Denmark, teacher education is located at universities and university colleges regulated by university legislation and its demands for research-based teaching. In Denmark, teacher education is situated at university colleges and with a developmental but not a research basis, albeit with a research attachment to universities.

This difference between Denmark and the other Nordic countries is reflected in competence demands on lecturers in teacher education. The formal competence demand in all Nordic countries is an MA level, but a trend towards increasing the number of PhDs has become visible. In Finland the competence demand for lecturers is a PhD. Eventually, this will also be the condition of employment on a permanent basis in Iceland. In Norway, the NOKUT (Norwegian Agency for Quality Assurance in Education) in its evaluation of Norwegian teacher education recommended a ratio of at least 20% PhDs in teacher education, and in Sweden Högskoleverket (The Swedish National Agency for Higher Education) operates with a general demand of 30% PhDs, which in the account on teacher education from 2008 is increased to 50%. There is no specification of the number of PhDs in Danish teacher education but the number is estimated to be very low. With teacher education being located at institutions with no research obligations, it seems that there is very little incentive to increase the number of PhDs, and that it will take many years for the level to equal that of the other Nordic countries.

3 Contemporary school challenges

Nordic teacher education is facing a number of challenges, three of which will be discussed:

- The demographic composition of students in schools and increased diversity and heterogeneity.
- The demand for research- or evidence-based knowledge about what works in order to obtain better student outcomes.
- Reforms of the governance of public institutions through the introduction of standard/test-based systems.

Diversity

Schools in the Nordic countries as well as in many European countries face challenges from growing immigration. Immigration creates new forms of diversity in many schools and classes and increases the complexity to which teachers must respond. This also challenges teacher education, which has to pay (more) attention to the development of intercultural knowledge and competencies, special education, dual language teaching, and the recruitment of students from new ethnic groups.

Most Nordic teacher education programmes include one or more subjects common to all students concerned with intercultural knowledge and competence as well as with inclusion and social equity. In Denmark the subject is called *Christianity, Life Knowledge and Citizenship* (Kristendomskundskab/livsoplysning/medborgerskab (KLM)), in Finland *Language and Communication* (Språk och kommunikation) and *Ethics* (Religion, Livssyn og Etikk), in Norway *Religion, Life and Ethics* (Religion, livssyn, etikk (RLE)). In Sweden an element of this character can be part of the common education area (allmänna utbildningsområdet, AUO).

Special education teachers are considered to be especially valuable with regard to providing support and compensatory teaching to students from immigrant families with a need for specially organised teaching. With its latest reform of teacher education Denmark has enabled student teachers to choose special education as a main subject. Finland has a particular special teacher education programme. In Norway students can choose an element from the special teacher education programme or

link special education as a research discipline to their teacher education (allmennlærerutdanning).

In Denmark it is possible to specialise in teaching bilingual students by choosing the main subject *Danish as a second language* (36 ECTS credits). In Norway it is possible to be trained as a bilingual teacher. Both countries seem to suffer from having too few bilingual teachers. In Denmark an important reason is to be found in the fact that the subject is only offered at major colleges, while in Norway the programme is only offered on the initiative of individual colleges.

Along with the increase in diversity in the Nordic countries a rise in the number of student teachers with a different ethnic background is being seen in teacher education. In Denmark the intake of students with a different ethnic background in the 2003-2005 period was 6-7%, in Norway the figure for 2005 was 5%, while in 2005/06 Sweden admitted 16% and in 2006/07 13%. In other words, the diversity in the student composition seems to be followed by a similar diversity among student teachers. An obvious conclusion might be that a reduction of cultural boundaries between teachers and students by employing more teachers with another ethnic background would be valuable for these students' learning outcomes.

Evidence-based practice and standard/test-based curricula

A general trend towards research-based teacher education can be observed in the Nordic countries. The rationale behind this trend is to be found in a wish to educate research-informed reflexive practitioners with a critical attitude to the many fashions and fads in education. Another rationale is the demands on teachers coming from an accountability policy. Accountability policy defines responsibility at all levels of the education system. On the one hand, this is done by describing clear societal expectations for school performance by means of standards and objectives and, on the other, by holding all parties, especially teachers, accountable for students' learning outcomes as measured by standardised tests. Such a policy stands or falls with sufficient knowledge about what works in teaching and how teaching can be improved. It seems meaningful to only hold teachers accountable if they are highly educated and competent practitioners.

Four out of five Nordic teacher education programmes are research-based. Both Finnish programmes are at the MA level (C2). Today's teacher education in Iceland is a university degree at the BA level (C1) but from 2011 it will be at the MA level (C2). Norwegian and Swedish teacher education takes place at university colleges and universities but regardless of the location it is governed by the same legislation with a demand for research-based teaching. In Norway the general teacher education programme leads to the BA level (C1). In Sweden teacher education is at the BA level (C1) for primary and lower secondary teaching and at the MA level (C2) for upper secondary teaching. Danish teacher education is not research-based, but development-based. It takes place at university colleges and leads to a professional BA (C1).

4 Conclusion

The Nordic countries, with Finland as an exception, are facing major recruitment problems with teacher education. We have pointed out similarities as well as differences between the Nordic programmes. Two main factors are common to the Nordic countries and thus cannot explain the recruitment success of Finnish education:

- All Nordic teacher education programmes acknowledge the importance of subject didactics and also the importance of combining subject didactics with subject knowledge so subject didactics is integrated in the main subjects in all Nordic countries.
- All Nordic teacher education programmes acknowledge the importance of a strong link between theory and practice, and they also acknowledge that the link is often too weak, thus all countries are aware of the problem.

When focusing on the structure and organisation of the programmes, three major factors are found that distinguish Finnish teacher education from the teacher education programmes in the other Nordic countries:

- Pedagogical studies (educational science) play a larger and more important role in Finnish teacher education. This applies to the scope of the subject as well as to its relevance in the programme as such.
- The proportion of practice teaching in Finland is less than in the rest of the Nordic teacher education programmes, but the quality of practice teaching seems to high due to (better) educated mentors and the use of specialised practice schools.

– Finnish teacher education has since the end of the 1970s been a research-based programme within the university structure. Formally, Danish teacher education is the only Nordic programme that is not research-based, but in reality the research base of the other Nordic programmes can be debated whilst ever only a few lecturers hold a PhD.

These factors indicate that the strong emphasis on professional specific elements and subjects in the Finnish teacher education programme plays an important role with respect to recruitment. In particular, it seems as if Finnish teacher education focuses strongly on training future teachers for the teaching profession and a professional community.

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Supporting a Culture for Quality Improvement in Teacher Education: Towards a Research Partnership

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ABSTRACT

This article offers a reading of the critical role of teachers in knowledge creation and focuses on issues of practitioner research in developing and supporting quality improvement culture in teacher education. The article consists of four parts. In the first part, a framework for understanding the nature of practitioner research is provided. In the second part, the different reasons for engaging in practitioner research are pointed out. In the third part, the conditions for building research relationships between school and university are discussed. And finally, some conclusions supporting quality improvement culture in teacher education are made. The article aims to highlight the importance of supporting culture for quality improvement in teacher education through promoting an interactive research partnership between universities and schools, which can be a basis for knowledge creation. The author argues that a debate concerning educational practice and creating educational knowledge, should be focused not so much on barriers which weaken the co-participation of academics and practitioners in creating knowledge, especially on a barrier concerning the existence of a "gap"/"distance" between academics and practitioners, but rather on possibilities of cooperation between them in creating knowledge. These possibilities become particularly visible when we concentrate on the "sphere"/"space" that exists between academics and practitioners. In this space academics and practitioners stay together and participate in the social process of creating educational knowledge, which is mainly observable in practitioner research. The article concludes that supporting culture for quality improvement in teacher education through promoting an interactive research partnership between universities and schools can be a basis for knowledge creation.

Key words: Knowledge creation, practitioner research, teacher education, quality improvement culture

1 Introduction

The different definitions of quality can be classified in two groups: approaches that mainly pay attention to the quality of outputs and approaches that focus on the quality of processes in developing, implementing and improving institutional activities. It is often the case when speaking of teacher education and its quality that it is easy to revert to managerial concepts such as quality control, quality mechanisms, quality management etc. These concepts convey a technocratic and top-down approach in the development of "quality assurance movement" in higher education in Europe. The dynamic aspect of quality (in both the outputs and the process perspective) is a dimension which is pointed out in this paper. I assume that a focus on quality in teacher education should on the one hand always enhance and improve the current status and develop the systems that assure it and, on the other, perceive the concept of quality of teacher education as an ongoing exercise. It is not a state that is reached once and for all but one that needs to be pursued continuously.

The term "culture" in the title of this paper was chosen to convey a connotation of quality as a shared value and a collective responsibility for all members of higher education institutions (Quality Culture in European Universities, 2006), whereas the expression "Supporting culture for quality improvement" signals the need to develop different ways of dealing with the complexity of teacher education and its quality: all of these ways are connected with a change in values, attitude and behaviour within institutions.

This paper addresses the critical role of teachers in knowledge creation and primarily concentrates on issues of practitioner research in developing and supporting quality improvement culture in teacher education. Taking quality in teacher education from a bottom-up perspective into account, I assume that practitioner research can promote creative partnerships between those institutions in which teachers and academics work together in order to support knowledge creation and the quality of teaching (the quality of teaching would be substantially improved if teaching were a research-based profession and if teachers were to play a central role in carrying out research). As far as supporting a quality improvement culture in teacher education is concerned, in this paper I pose the question about the participation of

academics and practitioners in the social process of creating educational knowledge and, to put it more precisely, about conditions of mutual participation of academics and practitioners in this process. In connection with this question, steps should be taken to find common ground for an agreement between the researchers of educational processes and teachers. Considerations about the conditions of creating educational knowledge, thus about the formation of knowledge and changes and re-evaluations occurring in reflections on these conditions, are made in agreement with my belief that acquiring professional knowledge is not only a cognitive process, but an interactive process manifesting itself in the social creation of new norms and possibilities of action.

I argue that the debate concerning educational practice, as well as on creating educational knowledge, should be focussed not so much on the barriers which weaken the collaborative participation of academics and practitioners in creating knowledge, especially on the barrier concerning the existence of a "gap"/"distance" between academics and practitioners, but rather on the possibilities of co-operation between them. These possibilities become particularly visible when we concentrate on the "sphere"/"space" that exists between academics and practitioners, the space in which academics and school teachers, i.e. practitioners, stay together, which is mainly observable in practitioner research. Many scholars indicate that it is necessary to move away from researchers and practitioners locking themselves away in two separated "castles": the castle of the school and the castle of the academy (Somekh, 1994; Johnson & Johnson, 2002; Lunenberg, Ponte, Van de Ven, 2007).

2 Practitioner research: its main premises and nature

Practitioner research is closely related to, and draws on, the methodologies of the "family of action research", including participatory research, critical action research and classroom action research. Practitioner research draws on methods from a wider field than action research. Among the ways of collecting data one can find case studies, ethnographic studies, biographical and narrative research. The different forms of practitioner research today are the culmination of long processes of evolution and contestation, including efforts both

inside and outside education (Noffke, 1997a, 1997b). As Anderson, Herr, and Nihlen (1994) noted, a number of calls emerged during the early part of the 20th century for teachers to actively participate in research carried out in their classrooms in co-operation with academic researchers. This co-operation in educational research was something that would lead to the greater professionalisation of teaching and to raising its status in society.

Nowadays, one can say that practitioner research is often used as an umbrella term for a large number of research-based activities undertaken in the fields of practice in education. It implies that practitioners will learn from their research into practice, which is not always the case in other forms of research. It also aims at improving rather than proving as an approach to research. Groundwater-Smith and Mockler (2006, p. 107) argue that in the field of practice-based research those involved in practitioner inquiry are bound to engage with both "theoretical" and "practical" knowledge, "moving seamlessly between the two". Thus, the term "practitioner" research encompasses various types of research which are characterised by a particular way of exploring the world in order to improve it, and it is connected with a particular way of collecting research materials. Different types of practitioner research refer to a variety of personal, professional and political motivations for conducting research. What connects all the approaches called "practitioner research" is the fact that they begin with one problematic situation – a practical one – and result from an emerging need of a researcher to be active, to introduce change. At the same time, it allows the researcher to reflect deeply on their own actions and its results. In these types of research we experience not so much the situation in which theory is created in order to be applied in practice, but the situation in which there is a transition from practical actions to theoretical generalisations.

Asking questions about the nature of practitioner research is like asking questions about topics and procedures of data collection and analysis, and forms of communicating results of research. Due to the limited length of this paper, I will not address procedures for data collection and analysis, and forms of communicating the results of research, which are typical of all traditions of practitioner research, and I will also not discuss the general issue of the criteria that should be used to assess the trustworthiness of claims made in practitioner research. Literature has

emerged in the past decade that does a good job of this (Zeichner & Noffke, 2001). I will especially focus on the relationship between teaching and research and the concept of practice as knowledge production.

Practitioner research is carried out by practitioners, most often in co-operation with academics, or by academics themselves, and it incorporates a wide spectrum of approaches. The diversity of these approaches has led to debates about what practitioner research ought to be and what can be seen as the core of practitioner research. Taking into account the characteristics of different research approaches, which are usually bundled all together under the term "practitioner research" – except where we are referring directly to specific authors, in which cases we use the term used by the author in question – we can try to find what connects these research approaches and therefore what can be seen as the core of practitioner research.

Beginning with the early work of Corey (1953) in the United States, practitioner research is not simply to be seen as "applied research". It starts by assuming that there is a different relationship between research and teaching. Rather than these two being dichotomous activities, this alternative approach sees research and teaching as closely related activities. The conventional premises on which the relationship between research and teaching can be found were: "research and teaching are dichotomous activities" (see Cole & Knowles, 2004). The so-called Research, Development and Diffusion (RDD) model is based on epistemological views which postulate that science generates objective knowledge of general application and that practitioners subsequently master and apply this knowledge. The most important basic assumptions of the RDD model are: (i) reality characterised by casual laws and mechanisms exists (it can be objectively observed, studied and known); (ii) science has to strive for knowledge about things as they are, as they happen (this knowledge must be universal and amenable to empirical generalisation); (iii) knowledge of reality has to be neutral and can be established objectively; and (iv) sciences refrain from normative pronouncements. The problem with this model is that it is often declared to apply in its entirety to all academic disciplines, including the social sciences. This way of thinking works through into the ways knowledge construction and the dissemination of knowledge are organised. Zichner and Noffke (2001) expressed their view on the RDD model in the

following way: "Rather than regard practice itself as a form of systematic knowing, the practitioner's role … is merely to consume research produced by others" (p. 298).

Practitioner research is not research that can concern the transfer of pedagogical/educational knowledge into practice, i.e. a one-sided transmission of ideas into teachers' practice, but it concerns the application of this knowledge in practice. This is not research that is conducted exclusively by academics in order to use the resulting findings in practical conditions. Teachers and other educational practitioners become producers, as well as mediators and consumers, of knowledge. For many advocates of practitioner research, the concept of practice as knowledge production is essential in that it can both embrace the value of individual development and move beyond the local and private context to contribute more broadly to educational and societal improvement.

Teacher research has received much attention in the last decade. The popularity of the view that research and teaching are closely related activities has reasonable justifications and benefits. Teacher research has a range of impacts on staff, including changes to a curriculum and pedagogy as well as improved confidence, job satisfaction and professional development. When teachers inquire into their own practices, individually or collectively, teachers' professional growth and pedagogical activity benefit (Borg, 2006). Teacher research can be a boost providing teachers with the momentum to engage in research. Undertaking research can help teachers develop critical and analytical skills which will enable them to read and evaluate research reports in an informed and knowledgeable way. It encourages hard work and fills in gaps in previous research and creates avenues for future investigations. Through research teachers can appreciate its benefits, begin to understand in deeper and richer ways what they know from experience, be seen as learners rather than functionaries who follow top-down orders without question and finally be seen as knowledge creators who reflect on their professional needs and current understandings and explore the learning processes occurring in their classrooms and then attempt to interpret them. This is called research-informed or evidence-based practice which has been promoted to enhance teaching and learning.

According to Zichner and Noffke (2001), we can state that the nature of practitioner research varies not only across but also within the different traditions of practitioner research. The process-product research orientation typical of certain works in some North American research contrasts directly with the more personal and narrative style found, for instance, in the United Kingdom. The works presented in the Collaborative Action Research Network publications represent a broad range of practices from different fields and countries and reveal a mixture of narrative, commentary and methodological discussions.

What is evident here is that practitioner research is about a peculiar unity of theory and practice by understanding them as the co-building elements that are both in dynamic development and an integrated wholeness. Practitioner research is strongly oriented towards the local character of social issues. This local focus means there can be no such thing as a single best model for practitioner research. What all approaches to practitioner research have in common is that they are founded on the assumption that educational knowledge can be treated as a social construction. This knowledge is not developed by applying theoretical knowledge, nor through routine actions in everyday practice; it is developed in and through praxis. Praxis is a concept that originates from Aristotle and is today defined mainly as an action and it refers, in general sense, to all intentional activities by which people can achieve a particular goal through their own efforts.

Raising the issue of practitioner research and knowledge construction, I seek to make it clear that the question is not so much how practitioner research can contribute to the *integration* of theory and practice, which is usually interpreted as improving the transferability and application of knowledge that is amenable to empirical generalisation. A far more relevant question is how practitioner research can contribute to the *interaction* between different layers of theory on one hand and of practice on the other. Grundy defined this type of knowledge as: "Knowledge that is intrinsically connected with practice. This is not knowledge that informs practice, or that has practical intent, but knowledge which is embedded in 'praxis': reflective knowledge in and through action" (1987, p. 40). Practitioner research can therefore be seen as knowledge construction in and through praxis in which teachers (with external researchers) explore and improve practical situations and interpret their findings and improvements in the light of their educational goals.

Although the potential of practitioner research to contribute to educational knowledge creation is not discounted (see Whitehead, 1993), there is more emphasis on its impact on building collaborative professional communities (e.g., Kemmis & McTaggart, 2005) and on informing educational policy (e.g. Atkin, 1994).

3 Practitioner research: developing a research partnership

Building relationships between the school and the university is a really important aspect of any collaborative research partnership. However, from a school perspective and university perspective significant barriers need to be overcome before effective working relationships between school- and university-based researchers can be forged (Lunenberg, Ponte, Van de Ven, 2007). Some of these barriers originate in people's past experiences, while others are based on shared myths and common misconceptions about universities and academics.

Different expectations of research between universities and schools lead to a situation in which knowledge creation in itself is not the starting point for many teachers doing research and indeed some of the new knowledge arising from practitioner research may not be recognised if not immediately relevant to the desired outcome improvement in practice. Practitioners usually value findings that have a direct application in classrooms while academic researchers are rewarded by being published in academic journals that many practitioners do not read. Many academic researchers see knowledge creation as the main function of doing research, but they arguably have a limited view of the relationship between knowledge, practice and research. Some practitioners believe that education research is largely quantitative and abstract and that it is not relevant to their specific context.

I would argue that we need to cross boundaries to close the gap between theory and practice in education and to achieve praxis. Praxis is action and it refers to, in a general sense, all intentional activities by which people can reach a particular goal through their own efforts. So it is not just universities crossing the boundary to collaborate in research and work in schools but schools crossing the boundary to work and perfect their research skills at universities. Frederick Erickson, in the third

edition of the Handbook of Research on Teaching (1986), discussed research collaborations involving academics and teachers and said: "A few steps beyond collaborative research involving teachers and academic researchers is for the classroom teacher to become the researcher in his or her own right" (1986, p. 157). Erickson went on to argue that more teachers need to take on the responsibility of conducting educational research: "If classroom teaching in elementary and secondary schools is to come of age as a profession – if the role of teacher is not to continue to be infantilised – then teachers need to take the adult responsibility of investigating their own practice systematically and critically, by methods that are appropriate to their practice.... Time needs to be made available in the school day for teachers to do this. Anything less than that basic kind of institutional change is to perpetuate the passivity that has characterised the teaching profession in its relations with administrative supervisors and the public at large" (p. 157).

Many teachers are concerned about time and abilities and still see teaching as a consuming, complex activity which is made even less manageable when research is an additional requirement, even though it is exactly that experience of teaching complexity which makes teachers' input vital to research and reflection on teaching. Teachers are already overburdened by curriculum requirements, accountability requirements and all the day-to-day pressures of keeping a classroom running and they wonder why they should take on anything more. This concern is justifiable and understandable; however, it is a misconception that sees research as an activity separate from teaching. For many teachers, research is an optional extra (Thornley et al., 2004). Teachers must realise that research is doable because it stems from their own teaching practice. They should become aware of their own practices and the beliefs that underpin them, construct their knowledge and become active participants in research. They must acquire research skills and the confidence necessary for disseminating small-scale but high quality research findings, thus making public their knowledge, beliefs and practice. As researchers of their own practice, teachers can discover for themselves how deeply theoretical their work is and has always been. This discovery can position them in a new relation to university theory. Theory is no longer what "they" do at the university, but becomes what "we" do in our classrooms every day (Kalnin, 2000).

The partnership of institutions of higher education/universities and schools based on co-operation consists of increasing the significance of differences and reinforcing the sense of identity, and at the same time of expanding mutual knowledge about each other and raising the degree of mutual understanding so that the movement between the two "castles" can take place in a way bringing pleasure and posing a challenge, and can be mutually strengthening (Somekh, 1994, p. 373). The possibility of crossing the barriers, of removing them so that co-operation between academics and practitioners can start, is based on the metaphor of mutuality (Johnson & Johnson, 2002). The partnership of institutions of higher education/universities and schools emerges from the need to understand that in this co-operation both contribution and learning combine in one process.

Andrew H. Van de Ven (2007) shows that business people and academics usually find it hard to discover common areas, to agree on many matters, but that probably they would agree on one thing: they possess completely different ways of perceiving the world and of evaluating it. In reality, differences that exist between the practitioners and academics create not so much barriers making their co-operation impossible, but chances for a better search for solutions to problems involving both sides. It is hard to give full and appropriate answers to questions posed by researchers if the search for this answer is characterised by only one way of thinking. "Engaged scholarship" is such a form of research practice in which one looks at a particular problem from various perspectives: the academic's, the practitioner's, the client's and others'. When such a situation occurs, it may help increase our abilities to expand knowledge and improve practice.

There is no doubt that searching for possibilities of co-operation between academics and practitioners on the assumption that they are different does not mean that they oppose each other or that they are supposed to substitute each other. Researchers and practitioners, while having different points of view in understanding the problem, can increase the significance of research for practice and personally contribute to the advancement of scientific knowledge in the pedagogical field. During the process of research, teachers have the opportunity to travel outside their environment to seek information and collect relevant data. They can develop relevant research skills: formulating realistic research questions, adopting appropriate

procedures for collecting and analysing data, and presenting the fruits of their research in a form accessible to others. It provides greater opportunities for collaboration and networking between academics and teachers. When teachers are involved in research, their motivation may be boosted and maintained. Through collaborative knowledge building, studies can spotlight transitional trend analysis through human and instrumentation collaboration. To enhance co-operation between academics and teachers the emergence of positive motivation that makes teachers utilise academic knowledge (recurrence, objectivity, generality, explaining, for example, why people behave in a certain way), establishing pedagogically/educationally effective contacts of researchers with teachers and establishing dialogue between researchers and teachers may be necessary. It is worth mentioning that, when analysing the conditions for promoting knowledge creation, Hannele Niemi (2008) states that teachers should have "opportunities to link teaching and learning together with the latest research dealing with the contents and methods of teaching. However, this requires a new kind of co-operation with the academic community and the representatives of practitioners. It also requires the organisational support of higher education institutions to arrange platforms and models to join knowledge creation in pre- and in-service teacher education. […] Advancing co-operation and continuous learning among practitioners requires a high quality research community that contributes with internationally recognised research as well as communication and collaboration with practitioners and decision-makers. Co-operation must not lower ambitious scientific aims but should enrich research design and methodologies" (pp. 201-202).

Practitioner research calls for courage to deal with emerging social problems. Short-sighted educational policy becomes something of an obstacle in increasing the quality of how schools function. Thanks to practitioner research, as researchers of their own practice undertaken in co-operation with academics' critical reflection and making efforts to understand their own practice and its context, teachers can change their own practices and support the work of their schools, as well as contribute to the development of educational knowledge. Practitioner research can assist in concentrating not on the gap/distance between academics and practitioners, but on the space/sphere between them, the one that links academics and practitioners – this sphere is education. By forming the sphere/space that links them, academics and practitioners

can act in order to co-create educational knowledge and change educational practice.

4 Practitioner research and quality improvement in Teacher Education

Practitioner research is particularly important for higher education institutions and schools willing to "evolve" their culture in the direction of a quality improvement culture. It is therefore essential to try to understand how practitioner research can affect the quality of teacher education.

It needs to be reiterated that the effectiveness of teaching in schools would be significantly improved if teaching were a research-based profession and if teachers were to play a central role in carrying out educational research (Hargreaves, 2007; Niemi, 2008; Vogrinc, Krek, 2008). The idea of teachers conducting research on educational practice comes from the work of John Dewey and Kurt Lewin. Nowadays, the discourse of practitioner research emphasises particular skills needed to reflect constructively upon ongoing experience as a way of improving the quality and effectiveness of teachers' work. The discourse implies a sound understanding on the teachers' part of relevant educational theory and research (Moore, 2007). Therefore, it is essential for teachers to become aware already during their teachers' studies that "research of educational practice is one of the instruments for establishing and ensuring the quality of this practice, that they recognise research as an important factor of the professional conduct of teachers, and that they should be fully qualified for research" (Vogirnc, Krek, 2008, p. 228).

Practitioner research contributes to genuine indigenous and sustainable development, and has a beneficial effect on both teaching and learning. Secondly, practitioner research is necessary from both theoretical and pragmatic perspectives. Teachers are consumers of research as well as producers of research. As consumers of research, they need products of research to reform their teaching practice (Gore & Gitlin, 2004). As research producers, they explore specific puzzles in their day-to-day teaching practice and come up with their own theories. Their research can help enrich theories and bring to the fore important issues arising from their context. Those issues will be insightful to teachers in other

educational, social and cultural contexts. Besides, from a practical perspective practitioner research can be a significant driver of innovation and change in schools since teachers are mediators of educational change at the nexus of actual practice (Firkins & Wong, 2005). Teachers can change or introduce a new pedagogical practice by doing research, which means understanding and, if necessary, reforming the "institutional habitus" (Burns & Knox, 2005, p. 256) within which practice occurs and recruiting teachers as active agents in the process of change through building networks of collaboration.

The formation of a greater research partnership goes against the grain of individual accomplishment that still dominates the culture of higher education in some countries, at least in the Polish case. For the idea of research partnerships to be realised to a degree that has a noticeable impact on research, and especially research in teacher education, cultural changes will need to occur in the academy. These changes can support engagement in collaborative research partnerships that involve teams of practitioners and researchers working on coherent and highly focused programmes of research. Research partnerships can give a lot of attention to teacher education. The idea of practitioner research can be one way to build greater capacity for research in teacher education and its connection to outcomes, including student learning.

5 Conclusions

This paper aims to highlight the importance of supporting a culture of quality improvement in teacher education by promoting a research interactive partnership between universities and schools, which can be a basis for knowledge creation. In today's society the practical application of academic pedagogical/educational knowledge is not the only challenge. Nowadays, nobody expects any more that teachers will strictly/rigorously apply procedures based on their formal knowledge. Professional teacher knowledge is not only "formal", i.e. one created by researchers for teachers. But the margin of tolerance/acceptance of routine actions based on knowledge obtained only from practice is also quite small. More and more often, the emphasis is put on the creation of this knowledge, on the fact that the formation of educational knowledge cannot happen without the participation of school teachers since the theory of education is not only the domain of academics. In a

widespread shift, the concept of teachers as mere consumers of educational research is changing to one of teachers as producers and mediators of educational knowledge (Richardson, 1994). The idea that teachers should also be researchers has become commonplace (Ellis, 1998, p. 14).

In this paper I have posed a question about the conditions of the mutual participation of academics and practitioners in the social process of creating educational knowledge. The considerations about the formation of knowledge have been made in agreement with my belief that acquiring professional knowledge is not only a cognitive process, but an interactive process manifesting itself in the social creation of new norms and possibilities of action. I first provided a framework for understanding the nature of practitioner research. I then pointed out the different reasons for engaging in practitioner research, ranging from an interest in better understanding one's own students and improving one's teaching, through generating knowledge about teaching and schooling that can be shared with others, to improving various social and institutional contexts in which their educational practice is embedded; and I focused mainly on the relationship between research and teaching and the concept of practice as knowledge production. A second emphasis of this paper has been to discuss the conditions for building research relationships between the school and the university. I looked especially at the conditions of the mutual participation of academics and practitioners in the social process of educational knowledge creation, and on the issue of why we would want to cross the boundaries in collaborative research between universities and schools.

While I hope the analysis presented here has captured some of the important issues concerning the conditions of educational knowledge creation in accordance with practitioner research, much work in relation to this issue is clearly needed. I supported the idea of building educational knowledge by creating research partnership between university and school and tried to show how much more significant it is to focus not so much on the barriers which weaken the co-participation of academics and practitioners in creating knowledge, especially the barrier concerning the existence of a gap/distance between academics and practitioners, but rather on the possibilities of co-operation between them. I made a number of general assertions about the issue of conditions of knowledge creation on the basis of my analysis of both

academic and practitioner research literature. I emphasised that the idea of "practitioner research" is connected with the philosophy of co-operation which is based on a well-thought-out concept of educational community, on taking personal responsibility for the general shape of school teaching and pastoral care by all vitally interested in it. I am aware that the discussion of educational knowledge creation and its conditions presented in this paper barely begins to scratch the surface of what needs to be done to collaboratively develop ways in which knowledge creation can be determined in different contexts. However, I hope that I have outlined some of the major issues that need to be resolved.

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Teacher Competence as a Basis for Teacher Education: Tuning Teacher Education Curricula in Five Western Balkan Countries[1]

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> The chief purpose of education is to teach young people to find pleasure in the right things.
>
> PLATO (c400 B.C.)

ABSTRACT

The orientation of teacher preparation towards the development of competencies is increasingly being suggested as a worthwhile direction for change in teacher education in the Western Balkans. The main lesson to be learned from other countries that implemented similar reforms is that they fare better where the competencies to be acquired have been set in consultation with teachers and teacher educators. At the same time, there is room for learning between the Western Balkan countries given their commonly inherited traditions and similar reform moves in teacher education tied to European integration and Bologna processes. In the Tuning Teacher Education study we compare the responses of 2354 teachers, teacher educators and student teachers from Bosnia and Herzegovina, Croatia, Macedonia, Montenegro and Serbia about the importance of 39 teacher competencies. The study has been

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conducted by the Centre for Education Policy from Belgrade in cooperation with the Universities from Banja Luka, Niksic, Novi Sad, Sarajevo, Skopje, Split and Zagreb. Four case studies of study programmes from the region have been conducted with a view to estimating how competencies arrived at in the field survey are represented in the present curricula for teacher preparation. The results are discussed with regard to their implications for reforms in teacher education policies and programmes.

Key words: curriculum reform, teacher competence; teacher education; teacher knowledge.

1 Introduction

The gap between teaching practice and teacher education

The nature of education as a normative enterprise entrusts teachers with an ambitious mission of educating children and young people beyond particular subject areas. This assumption bears even more relevance at times of large-scale social and economic changes, such as those occurring in Western Balkan countries. In the existing socio-economic and cultural context of countries which are still in the process of a devastating transition, the mission of education is even more important. Teachers are often referred to as key contributors in preparing future generations for the changed world of work and social participation. A general consensus seems to exist that education, and teachers in particular, have an important role to play by imparting knowledge and skills, as well as by acting as models for young people.

At the same time, the prevalent view in Western Balkan countries is that teachers do not receive adequate preparation and that there is room to improve the both continuous and initial education of teachers. The latter is the subject of the present study. Criticism of initial teacher education ("ITE") tends to focus on the fact that there is a gap between the theoretical preparation of teachers and the requirements for the "new" skills in practice, an issue which has been highlighted in a number of recent studies conducted in the region (Rajović & Radulović, 2007; Vizek-Vidović, 2005; Zgaga, 2006). They invariably suggest that, while a solid academic coverage of subject and pedagogical knowledge about themes and problems is provided, the missing element in teacher education in the region is knowledge concerning how to identify and deal with problems in a concrete setting. Such expertise involves a

combination of cognitive and practical knowledge and skills, along with values, motivation and attitudes, a combination referred to as "competence" in the literature. It has been suggested that solutions are to be sought in orientating teacher education towards the development of key competencies in subject and educational matters and the provision of practical experiences (Rajović & Radulović, 2007, pp. 431-432; Vizek-Vidović, pp. 122-123; Zgaga, 2006, p. 27).

Mobility and stakeholders' involvement

At the same time, a study by Zgaga (Zgaga, 2006) notes that most people from teacher education institutions have appealed for a comprehensive reform of curricula with a view to enhancing national education systems and improving their compatibility with European and international trends (p. 12). This is conveniently at a time when all countries are committed to implementing the Bologna Process, meaning that curricula are to be based on "learning outcomes", which in turn are to be based on "competencies" required for practice. The purpose of such competence-oriented reforms is twofold. On one hand, they seek to increase the comparability of degrees and, ultimately, the mobility of students and workers and, on the other, they clearly imply that the goals of higher education are now to be defined in line with the broader involvement of stakeholders, notably in co-operation with employers.

Similarly, the research project presented here has been designed to contribute to two goals: informing the efforts of teacher education institutions in the region so as to move closer to the EHEA by promoting the comparability of qualifications and mobility in the region; and helping them base their curricular reforms on the real needs of their students' future jobs. To accomplish those goals, competencies on which learning outcomes are to be based need to be defined and articulated in a consultation among higher education staff and students and their future employers. In the case of teacher education, the graduates' future employment is to be primarily found in education institutions at different levels. That is why the participants in the study include pre-primary, primary and secondary teachers, teacher educators and student teachers. This approach also provides an opportunity to meet the goal of helping teacher education institutions reflect the real needs of practice in their curricular reforms.

The European context of TE development and the definition of competence

Given that the Western Balkan countries seek to join European integrations, it is instrumental to consider European policies and experiences in setting and harmonising teacher competencies. The key reference document Common European Principles for Teachers' Competencies and Qualifications suggests that "teachers' ability to reflect on the processes of learning and teaching should include their subject knowledge, curriculum content, pedagogy innovation, research, and cultural and social dimensions of teaching" (European Commission, 2005). Of course, teacher preparation policies and programmes that integrate such a general provision vary enormously between nations (Sayer, 2006, p 69). In Europe, some countries' TE practices are fully or predominantly embedded in practice, while others insist on theoretical foundations. This relates to the extent to which ethical issues about teacher education are to be found in policy documents (Kyriacou et al., 2004).

The narrow understanding of competence as some kind of "theory-free" skills has rightly been attacked for downplaying the importance of knowledge, beliefs, attitudes and values as significant aspects of teachers' expertise. A broader view of competence is rapidly accepting the inclusion of disciplinary knowledge and theory, as well as attitudes and value stances as integral parts of competence. We adopt the following definition of the concept of competence offered by the European Tuning project: "Competencies represent a dynamic combination of knowledge, understanding, skills, abilities and values. Fostering these competencies is the object of educational programmes. Competencies will be formed in various course units and assessed at different stages. Competencies are obtained by the student" (Gonzales & Wagenaar, 2005). Competencies are also essential for the psychological well-being of teachers. A person whose basic need to be competent is not met will be less satisfied with their job, less efficient and have reduced well-being. This will definitely impact on the teaching process and its outcomes for pupils. Hence, building so-called positive institutions, developing conditions for optimal experiences, and teaching and learning processes are priorities in the new world. Another important lesson that can be learned from the experiences of other countries that have been through the process of introducing teacher standards and competencies is that such reforms were more successful

when teachers were substantially involved in setting national standards (Storey, 2006). This has been identified as a major factor in a meaningful definition of standards which, in turn, has influenced the development of competence-based teacher education programmes. Bearing this in mind, this study surveyed 2,354 teachers, headmasters, student teachers and teacher educators about important competencies.

2 Methodology

Goals of the study

The presented research was designed to provide information about the competencies teachers need in practice that could serve as a baseline for teacher education curricula development and course design. For this purpose, the project was designed to help identify concrete gaps between practice-driven requirements of teachers and current teacher education provision. In order to do this it set out to establish:

- a clearly defined perspective of teacher competencies by practitioners; and
- a clearly identified scope for improving teacher education based on a review of existing programmes.

Research methodology and the field research phase

A pilot study preceded the research. It was conducted in Serbia with 370 teachers. Based on data previously obtained, the final version of the measuring instrument (questionnaire) in the form of a scale was constructed and used in this regional research.

The questionnaire consisted of an introductory explanation of the project's objectives and content, instructions for filling out the questionnaire and key information about the respondent: position, gender, age, work experience and education level. Where the survey took place, and the type of institution where the respondent works were also recorded.

Using a combination of open and closed questions, the respondents were asked to assess the extent to which their initial education had contributed to the individual development of competencies needed in practice. The respondents had an opportunity to comment and explain their attitudes, opinions and assessments.

An integral part of the questionnaire was a scale of 39 teacher competencies whose importance was assessed by the respondents, ranging from 1 (not at all important) to 5 (extremely important).

A factor analysis of teacher competencies was conducted based on the data. The second phase of the analysis and research data processing included an analysis of the content of curricula from selected teacher education institutions. Certain competencies and aims (those listed in the official curricula) were identified. The quantitative frequency of occurrence (conceptual and concrete specific) for knowledge, skills, attitudes and values, as components of competencies, was also analysed.

Research sample and structural characteristics of the respondents

The research sample was shaped in proportion to the countries that participated in the research (Table 1). These are Bosnia and Herzegovina, Montenegro, Croatia, Macedonia and Serbia. Out of a total number of 3,770 questionnaires that were posted out, 2,354 were returned, yielding a response rate of 62.44%. In Macedonia and Montenegro the response rate was 100%, while in Bosnia and Herzegovina and Croatia it was high (86% and 67%, respectively), while Serbia had the lowest response rate (37%). Differences in the response rates are partly due to the method of administration. In some cases, questionnaires were administered by the researchers, which raised the response rates.

Table 1. *Research sub-samples by participating countries*

Country	Total number of questionnaires	Questionnaires responded to	*%*
Bosnia and Herzegovina	684	586	85.67
Montenegro	138	138	100
Croatia	947	633	66.84
Macedonia	418	418	100
Serbia	1583	579	36.57
Total	3770	2354[2]	62.44

[2] The total number of respondents (N=2,354) will vary in the tables because in some cases we excluded the N/A option.

The types of research sub-samples were introduced, proportional and representative. In the process of sample construction by country, the following criteria were deemed relevant:

- territorial location of an institution (in a country's regions or other administrative areas);
- type of institution (pre-primary, primary, secondary, higher education institution);
- total number of teaching staff employed; and
- total number of students or pupils.

All aspects of the sub-sample determinants were defined as proportional, and at the same time were constructed as representative. In this sense, the sub-samples were stratified primarily according to teacher education institutions and those that employ the respondents as teaching staff. Table 2 shows the structure of respondents by job position, where *f* is the number of respondents, and % presents the percentage share of the whole sample.

Table 2. *Structure of the respondents by type of position*

POSITION	***f***	***%***
Pre-school teachers	242	10.3
Class teachers	268	11.4
Primary school subject teachers	678	28.8
Secondary professional school teachers	331	14.1
Secondary Gymnasium teachers	140	5.9
Principles (or similar managerial staff)	27	1.1
Expert associates	87	3.7
Higher education teachers	72	3.1
Higher education teaching assistants	69	2.9
Higher education students	366	15.5
Others	32	1.4
N/A	42	1.8
TOTAL	**2,354**	**100.0**

The initial phases of sampling in all countries are based on official statistical data (census, official data of state educational bodies and

others). From this general data about teachers and institutions, the percentage ratio of teachers was calculated according to levels and types of institutions. Finally, final research sub-samples in each country were constructed in the size of 1.5% (n). Hence, all proportional ratios were systematically fulfilled on each methodological level. Clearly, this proportionality could not be fully sustained in each country due to the different responses. With regard to the distribution of respondents' occupational position, primary school teachers are represented in the highest numbers (around 40%), followed by secondary school teachers with 20%, pre-school teachers with 10% and the same percentage of university teachers. Student representatives make up 16% of the total sample, but they were used as a so-called control group in the secondary analysis. This group is not treated as formal members of the teaching profession. In addition, educational governing staff represents the smallest percentage. These are headmasters, who are also a minority in the occupational structure. By the structure of respondents according to gender variables, the majority are women (89%) and they dominate in all research sub-samples. They represent a large majority among pre-school teachers, class teachers and teaching assistants (assistants at universities). Further, women are also in the majority in grammar schools and in primary schools.

It is obvious that the teaching profession has been feminised to a great extent in every country researched in the Western Balkans. In pre-primary schools almost all respondents were women. They are also the majority of the primary school (81.3%) and secondary school (69.5%) sub-samples. The smallest ratio was found among higher education schools and universities, where women represented more than half the sub-sample (58.3%).

It is interesting to see the respondents' opinions on the usefulness of initial teacher education in the development of the competencies needed for quality teaching practice, as presented in Table 3. The participants described how useful their initial education had been for them by indicating 1 (not important at all) to 5 (extremely important). The table also shows the horizontal and vertical percentages. Horizontal percentages (*h*%) represent the percentage of those who responded with the same rank out of the whole sub-sample for that country (for example, 7 respondents from Bosnia and Herzegovina indicated 1, which is 1.4% out of 491 respondents from that country). Vertical percentages (*v*%) present the percentage of those who responded with

the same assessment out of all who responded with the same rank (for example, those 7 respondents from Bosnia and Herzegovina who indicated 1 represent 38.9% of all 18 respondents who indicated 1).

The majority of respondents assess initial education as dominantly useful and important, using the two highest ranks (4 and 5), and representing 73.4% of all assessments. Figures for ranks 1 and 2, which means that the ITE is not useful and not important, are too small to allow a valid generalisation. With that in mind, one can see that out of (only) 18 respondents who indicated 1 (that their initial education was at all not helpful), 38.9% were from Bosnia and Herzegovina. One-third (27.8%) of the Macedonian teachers supported the same statement, while the Serbian figure was smaller (16.7%).

Table 3. *Respondents by countries and the perception of the usefulness of their initial education*

USEFULNESS / COUNTRY		*1*	*2*	*3*	*4*	*5*	*TOTAL*
Bosnia and Herzegovina	*f*	7	31	106	204	143	491
	h %	1.4	6.3	21.6	41.5	29.1	100
	v %	38.9	34.1	26.4	25.0	24.0	25.5
Montenegro	*f*	1	1	19	59	51	131
	h %	0.8	0.8	14.5	45.0	38.9	100
	v %	5.6	1.1	4.7	7.2	8.5	6.8
Croatia	*f*	2	34	148	274	125	583
	h %	0.3	5.8	25.4	47.0	21.4	100
	v %	11.1	37.4	36.9	33.6	20.9	30.3
Macedonia	*f*	5	14	57	134	145	355
	h %	1.4	3.9	16.1	37.7	40.8	100
	v %	27.8	15.4	14.2	16.4	24.3	18.5
Serbia	*f*	3	11	71	145	133	363
	h %	0.8	3.0	19.6	39.9	36.6	100
	v %	16.7	12.1	17.7	17.8	22.3	18.9
TOTAL	*f*	18	91	401	816	597	1,923
	h %	0.9	4.7	20.9	42.4	31.0	100
	v %	100	100	100	100	100	100

The lowest share of critical respondents is seen with Montenegrin teachers (5.6%) and their Croatian colleagues (11.1%). Around 24% of teachers from Macedonia and Bosnia and Herzegovina assessed the

practical benefits of initial education affirmatively and with the highest rank. They are followed by Serbian (22.3%), Croatian (20.9%) and Montenegrin (8.5%) teachers. The respondents' statements about the usefulness of their initial education in the development of their own competencies in practice yielded interesting results. Only 118 (n) respondents claimed that their initial education was useful. Most of those coming from Croatia (39.8%) believed that their initial education had helped them in their subsequent practice, mostly because it facilitated their learning of foreign languages and reading of literature. In Serbia, 21.2% of the respondents thought they had acquired the necessary knowledge in the seminars they had attended during the course of their education, and that they learned to be responsible, although they felt that greater significance should be attributed to their initial education. In Bosnia and Herzegovina (18.6%), similarly to Macedonia (15.3%) the respondents felt that their initial education had provided them with the basics for professional development through different projects and seminars and thanks to quality professors. In this environment, they were "getting ready" for new insights. Finally, 5.1% of the respondents in Montenegro claimed that they had gained the necessary knowledge and skills during the course of their initial education. In this context, the shortcomings of initial education were almost equally pointed out (n=106). Here the respondents were much more critical. They said their initial education had been lacking in practice and overloaded with theory; that the programmes had been obsolete and inadequate for practice; that significant changes in the education system were underway and education professionals were not taught how to handle the related changes in schools because practical advice was scarce. Some also claimed that they had not been taught some social skills or how to be self-critical. A smaller share of respondents was critical of their professors for not being competent enough to transmit pedagogical and other knowledge.

In brief, respondents pointed to both advantages and disadvantages in the initial education of education professionals. Most think that practical work is necessary during the course of education and that it should not be neglected. The need for lifelong education and self-education is considered imperative by most respondents.

3 Results

As the first strand of the research, questionnaires with a list of competencies were administrated among practitioners with the aim to evaluate the importance of each competence. The result is a consolidated list of 39 competencies pertinent to four areas of teacher expertise: *Competencies related to values and child rearing; Understanding of the education system and contributing to its development; Subject knowledge, pedagogy and curriculum; and Self-evaluation and professional development.* These are shown in Table 4.

Table 4. *List of competencies by domains*

Competencies related to values and child rearing
▪ Commitment to racial equality by means of a personal example, through curricular and other activities
▪ Ability to contribute to building pupils' awareness of the importance of health and environment protection
▪ Commitment to gender equality by means of a personal example, through curricular and other activities
▪ Readiness to be tolerant of differences (ethnic, gender, social, cultural, linguistic and religious)
▪ Ability to contribute to the prevention of violence in school
▪ Readiness to co-operate with pedagogues, psychologists and a career counselling service
▪ Ability to contribute to the creation of a climate conducive to learning and the development of all pupils
▪ Ability to recognise and adequately respond to gifted pupils
▪ Ability to recognise and adequately respond to pupils with learning difficulties
▪ Readiness to contribute to building pupils' awareness of the need for participation in a democracy
▪ Ability to inspire curiosity and encourage pupils to take the initiative and responsibility for their learning
▪ Ability to act as a moral model for children
▪ Readiness to implement in practice the principles of good discipline
Understanding of the education system and contribution to its development
▪ Readiness to participate in public debates on educational topics by following and participating in the work of relevant bodies at different levels
▪ Ability to participate in projects in field of education

▪ Understanding national priorities in education
▪ Readiness for co-operation with the local community in organising curricular activities (e.g. organising practice lessons in a local enterprise)
▪ Ability to predict new demands concerning education from the labour market
▪ Ability to conduct research for the development of education
▪ Understanding the laws and authorities in education
▪ Readiness for co-operation with stakeholders from health and social institutions
▪ Readiness to participate in school development planning

Subject knowledge, pedagogy and curriculum
▪ Understanding the assessment system and familiarity with different ways of assessment
▪ Ability to develop the linguistic and numeric literacy of pupils
▪ Solid knowledge of the subject or group of subjects one is to teach
▪ Grasp of practical aspects/skills involved with a subject or a group of subjects one is to teach
▪ Ability to use a computer and the Internet and design their effective use in teaching and learning
▪ Ability to use a spectrum of teaching strategies in accordance with subjects, themes and individual pupils
▪ Ability to implement curricula
▪ Ability to critically evaluate and adapt curricula
▪ Ability to use interactive teaching methods
▪ Ability to prepare and implement lessons in a way that provides continuity and progression in learning

Self-evaluation and professional development
▪ Ability to critically reflect upon one's own value system
▪ Ability to critically reflect on and evaluate one's own educational impact
▪ Dedication to the profession and work with children
▪ Ability to establish and maintain positive human relations with pupils, parents and colleagues
▪ Readiness to take the initiative and responsibility for their professional development
▪ Awareness of the profession's importance and responsibility*
▪ Readiness to contribute to development of ethics of the profession*

(**added by participants in the pilot study*)

The four domains of expertise were identified following the analysis of the factors underlying the practitioners' responses in the pilot study.

Interestingly, after this factor analysis was performed, some of the statements fell into different categories. Namely, statements referring to teachers' ability to recognise and adequately respond to gifted pupils and pupils with learning difficulties were perceived by the respondents as belonging within a professional development domain rather than an essential feature of the child rearing expertise that every teacher should possess. Such a discrepancy can obviously be attributed to the fact that the competence in question is new in a repertoire of in-service teacher education programmes and has not yet been integrated into the goals of initial teacher education. Similarly, "building pupils' awareness of the need for participation in a democracy" and "use of a computer and the Internet in teaching and learning" are perceived to belong to the domain of contribution to system development (2) rather than values (1) and teaching (3), respectively – the domains where the researchers originally assigned them. This is probably due to the fact that democracy-building and use of information technologies represent major directions of reform strategies that are still far from being perceived as inextricable parts of education and therefore essential features of each and every teacher's professional expertise.

In addition to the competencies added by the participants in the pilot study, most of the competencies added by the respondents in the regional study refer to aspects of teachers' selves and humanistic aspects of education, such as "possession of a healthy personality", "ability to empathise" and "build a collectivistic spirit among pupils".

The second research strand was to identify which of the aspects of competence (knowledge, skills, values and attitudes) are represented in the curricula programmes. Whether competencies are explicitly set as desired outcomes and in what amount and manner the aspects of competence are integrated were issues then examined. Further, the discrepancies between the competencies consolidated with the practitioners and their representation in the programmes were identified, thus mapping out a space for improvements.

Table 5 presents the average importance of the competencies pertaining to the four domains of teacher expertise, as assessed by the participants from the different levels of education. In the first column, the average ranking by pre-primary staff participants is given, for all competencies calculated for the four domains accordingly. The second column gives the rankings by participants from primary schools, and so on with the other columns.

Table 5. *Results for the four clusters of competencies*

Areas of competence	Mean scores				
	pre-primary	primary	secondary	higher	Total average
1 values and child rearing	4.60	4.56	4.48	4.39	4.53
2 contribution to education system development	4.01	4.07	4.04	3.91	4.04
3 subject knowledge, pedagogy and curriculum	4.39	4.58	4.53	4.53	4.54
4 self-evaluation and professional development	4.46	4.52	4.52	4.52	4.50

Apparently, contributions to education system development are perceived as the least important segment of teacher competence by practitioners from all levels of education. This is also the domain in which the mean score of responses is consistently statistically different from all other scales. The importance of competencies related to values and child rearing decreases amongst respondents from higher level education. Competencies relating to self-evaluation and professional development were given high rankings by respondents from all levels.

A few differences are noticed among practitioners from the different sub-samples. Statistically significant differences occurred mostly between the responses of student teachers and those of all other respondents, with the latter rating everything higher than the students did. Few significant differences were established between the different groups of stakeholders or different types of teachers. The difference between pre-primary teachers and all other respondents was not statistically significant for the group of competencies referring to subject and curriculum.

Case studies

The affirmation of evaluation practices involved in efforts to improve the quality of education at all levels led to a consideration of teacher competencies as an important part of the question of quality. For some occupations such as teaching, the problem of teacher competencies is unquestionably seen as an important part of the profession. For others like doctors, this topic is irrelevant, while for psychologists or pedagogues it has an unclear status.

A case study of the current education of psychology teachers is discussed, using examples of the curriculum for basic and graduate academic studies at Psychology Departments of the University of Novi Sad, Serbia, and the University of Skopje, Macedonia. It explores to what extent teacher competencies are defined as learning outcomes and through which aspects of the curriculum are they accomplished. The results show that teacher competencies do not explicitly feature the defined outcomes of psychology studies, yet contents of several segments of the studies could contribute to the development of such competencies.

Another case study analysed whether competencies are adequately presented and implemented in the curricula for foreign language teachers by comparing two such curricula in Croatia. One comes from the Faculty of Humanities and Social Sciences of Zagreb University and the other from the Faculty of Philosophy of the University of Osijek. The study therefore provides insights into similarity and variety in the education of teachers of the same subject in a single country. Both curricula tend to define teaching competencies mostly in terms of knowledge and skills, less frequently as attitudes, and very rarely as values.

Another case study related to the education system in Bosnia and Herzegovina where reforms of general and higher education are ongoing. Curricula from the Teacher Education faculties of Banja Luka and Sarajevo were selected for analyses because these two institutions are the most significant ones when it comes to producing teachers in Bosnia and Herzegovina. The focus was on inclusive education and the new competencies this implies for class teachers. It specifically considers a competence for work in an inclusive classroom taking up two competencies that emerged from the field research: a) the ability to recognise and adequately respond to gifted pupils; and b) the ability to recognise and adequately respond to pupils with learning difficulties.

A case study of teacher education curricula in Macedonia shows an insufficient emphasis of competencies related to commitment to values and child-rearing. Teachers are not well prepared to dealing with the issues of tolerance and ethnic, religious and cultural diversity. Also, the teacher education does not prepare teachers to deal with health issues in the school setting.

4 Conclusions

An analysis of the programmes was performed as case studies which are not necessarily representative of teacher education programmes in a country. Nevertheless, some common traits can be recognised in the conclusions reached in the individual studies and they are presented below.

The results show that in most cases teacher competencies do appear as explicitly defined outcomes of the syllabi. Yet, sometimes they are implied by the study contents – for example, in literature used in a course – even if competencies do not explicitly feature the defined outcomes of study programmes.

When competencies are formulated, they generally include terms related to knowledge and skills; they less frequently reflect attitudes and almost never refer to values.

Those competencies that are defined as outcomes of study programmes for the education of subject teachers refer primarily to the teaching subject as an area of teacher expertise. However, it can be noticed that the amount of reference to competencies specific to teaching varies between different subject areas and between different programmes in the same subject area.

When competencies referring to values do occur in programmes for the education of subject teachers, they tend to deal with development of the ethics of the discipline in question rather than those relevant to teaching.

Only a couple of instances were found in which a competence relating to understanding the education system and a contribution to its development was included in the analysed programmes. This suggests that the programmes lack elements that would strengthen the social role of teachers and build awareness of the importance of their contribution to the development of education.

Competencies pertaining to self-criticism and professional development are insufficiently represented in the programmes, also assigned by practitioners.

The proportion of practice in teacher education, at 10% to 15%, is also deemed insufficient and inadequate for helping student teachers develop teaching competencies.

Despite the aforementioned limitation of our ability to generalise based on case studies, the *Tuning* methodology proved suitable for establishing common practical needs within the teaching profession and common shortcomings in the existing programmes in terms of meeting those needs. This raises hope with regard to the goal of increasing the mobility of student teachers and of the teaching force in the region. Perceptions of competencies that are essential for quality teachers seem to transcend country-specific particularities.

This also sends a clear message to teacher education institutions in the region intending to better integrate practice requirements into their programmes. The point is that, in addition to knowledge about subjects and pedagogy, future teachers need help in developing the practical skills, attitudes and values that underlie the teaching profession. Moreover, they need more opportunities to try out and further develop their competence in practice and they need to be pushed to reflect on the relationship between theories and practice, as well as to think about the implications of education policies.

Finally, with regard to the goal of linking teaching practice and teacher preparation, it must be said that no list of competencies should be taken as set in stone. As one of the most dynamic professions, teaching requires the meta-competence of continuing self-reappraisal and constant searching in response to the ever-changing demands of future societies.

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Developing a quality culture in initial teacher education in Croatia[1]

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ABSTRACT

The paper explores the quality of initial teacher education from a top-down and bottom-up perspective. The top-down perspective is analysed by examining the legal context and external mechanisms for quality assurance in Croatian higher education. The analysis of the bottom-up approach is based on the "quality culture" concept introduced into the discourse on quality in higher education in order to "convey a connotation of quality as a shared value and a collective responsibility for all members of an institution, including students and administrative staff" (Quality Culture Project, EUA, 2006).

Within the top-down perspective it has been shown that the quality assurance of teacher education is managed within the broad framework of implementing the Bologna Process. No specific methodology for quality evaluation in initial teacher education has yet been developed. From the bottom-up perspective, the emergence of a quality culture can mainly be observed in projects carried out by members of academic staff in teacher education institutions. These projects have aimed to raise awareness about the importance of a quality culture and to strengthen individual and institutional commitment to deliver high quality education. Examples of such initiatives are presented as cases of good practice.

Key words: initial teacher education, quality assurance, quality culture

[1] This paper is part of the scientific research projects: MZOŠ RH no.227 – 2271168-1700 named: "Development of the National Standard for Professional Teacher Competencies" and no.100-1001677-0880 named: "Professional development of teachers during initial education and induction".

1 General approach to quality assurance in the European Higher Education Area

Quality assurance in higher education is one of the priorities of the Bologna Process across Europe. The development of the "quality assurance movement" in higher education in Europe has seen two distinct phases. The first one is a top-down approach which emphasises the establishment of quality assurance agencies with the purpose of monitoring and standardising national procedures for quality assurance. In the early 1990s comprehensive EU projects were launched aiming at the quality improvement of higher education based on the first national quality assurance systems that were developed in the UK, the Netherlands, France and Denmark. The European Network for Quality Assurance in Higher Education was established in 2000 to promote European co-operation in the field of quality assurance. In 2004 this network was transformed into the European Association for Quality Assurance in Higher Education (ENQA) (http://www.enqa.eu/history.lasso). In accordance with the Lisbon and Bologna processes, the ENQA supports enhancing the quality and effectiveness of higher education and training systems in Europe. One of the most important ENQA initiatives was the establishment of standards and guidelines for quality assurance for higher education adopted at the 2005 ministerial conference in Bergen (http://www.enqa.eu/files/ESG_3edition%20(2).pdf).

The second phase started early in the first decade of the 21st century enhanced by the Quality Culture Project (European University Association, 2006) which stressed the importance of a bottom-up approach to quality in higher education. Implementation of the bottom-up approach has been recognised as a key factor in promoting and spreading the idea of quality culture in higher education institutions. At that point, the quality culture concept as the main feature of this bottom-up approach was introduced in order to "convey a connotation of quality as a shared value and a collective responsibility for all members of an institution, including students and administrative staff". About 300 institutions from 40 countries participated in the Quality Culture Project whose main goals were: increasing awareness of the need to develop an institutional quality culture and to introduce an internal quality management system; ensuring dissemination of existing best practices in the field; helping institutions to develop effective external procedures of

quality assurance (Quality culture in European Universities: a bottom-up approach, 2006, pp. 6-7). Within this project, a model of institutional quality culture was developed that balanced the top-down and bottom-up approaches (Quality culture in European Universities: a bottom-up approach, 2006, p. 20). According to that model, the development of an institutional quality culture should be enhanced by institutional leadership which communicates the importance of quality commitment across the institution. In that context, the overall institutional strategy and co-ordination of its implementation is perceived as a prerequisite for promoting quality culture as well as the development of tools and mechanisms to monitor and evaluate quality. Important elements of internal quality culture are the development of open communication and the self-empowerment of staff.

In this paper the concept of quality culture is also perceived as a starting point for an analysis of how quality assurance mechanisms are being implemented in initial teacher education.

2 Quality assurance in teacher education in Europe

Teacher education in Europe has also been affected by current reforms in the higher education sector, especially in relation to the Bologna Process (Domović, 2009). An important contribution to quality assurance in teacher education was made by Eurydice in the major report *Quality Assurance in Teacher Education in Europe* published in 2006 (http://eacea.ec.europa.eu/ressources/eurydice/pdf/0_integral/062EN.pdf). In this report, data on the organisation of evaluation processes for initial and in-service teacher education is collected for 30 European countries. The main topics covered include the organisation and features of external and internal evaluation processes for both initial and in-service teacher education. The analysis shows that in most countries only general regulations for quality assurance for all higher education also apply to teacher education. Out of 30 countries, just six have both general and specific regulations regarding quality assurance in initial teacher education. Nevertheless, the report generally concludes that most countries had begun general reforms of initial and in-service teacher education systems in relation to the Bologna Process. A crucial part of these reforms has been the redefinition of qualification standards or necessary competencies that teachers should develop or acquire by the end of their initial education. The establishment of such national

standards has been recognised as a reference point for planning evaluation procedures and quality indicators. Almost all of the participating countries see the accreditation process as part of the quality assurance system. In addition, in most countries the quality assurance process is a combination of external and internal evaluation procedures. External evaluations focus mainly on the content of teacher education curricula, although teaching and assessment methods are also taken into account. Special interest is shown in the partnership with practicing schools and student teacher performance and other student related outcomes (student attitudes and opinions). External evaluation is organised periodically, but usually in two- or three-year periods. It is most often based on site visits by formally appointed reviewers who prepare themselves on the basis of internal evaluation results. The internal evaluation precedes the external evaluation and is usually co-ordinated by a special evaluation committee which prepares an institutional report. In almost all countries academic and non-academic staff, management and students participate in the internal evaluation process .

The Eurydice report also describes how results are used (2006, 68). Usually the results from external evaluations are related with the accreditation or re-accreditation of institutions/programmes.

3 Quality assurance in initial teacher education in Croatia

3.1 The Bologna process and the reform of initial teacher education in Croatia

Croatia joined the Bologna Process at the Ministerial Conference in Prague in 2001. The legal basis for implementing the Bologna Process in higher education is given by the *Act on Science Activities and Higher Education* in 2003. The Act elaborates the key issues of the Bologna Declaration: introduction of a three-cycle system, ECTS credits, emphasis on academic mobility and a student-centred approach to teaching and learning. The Act also emphasises the mechanisms and institution-building of the quality assurance system. The roles of the National Council for Higher Education and the National Agency for Science and Higher Education are defined regarding the accreditation

and periodical external evaluation of higher education institutions and programmes (*Act on Science Activities and Higher Education*, 2003).

The next step in implementing the Bologna Process involved the formulation of new regulations at the institutional level followed by the development of new study programmes. The procedures for the evaluation of the quality of higher education institutions and study programmes were regulated by a subsequent by-law passed in 2004 (*By-law on criteria for evaluating the quality and effectiveness of HEIs and study programmes*). The indicators of quality were described at both the institutional and programme levels.

The reform of higher education in Croatia which began in 2003 was realised in the 2005/6 academic year when the first generation of "Bologna students" enrolled in the first cycle of undergraduate programmes.

The higher education reform had significant consequences for Croatia's initial teacher education system. The rationale for those profound changes was the recognised need to improve the teacher education system. Perhaps the most important change related to the status and duration of study programmes of class teachers who, in Croatia, teach in the first four grades of primary school. Prior to the reform, prospective class teachers were educated at higher professional schools, i.e. they graduated from colleges after completing a four-year programme with a B.A. vocational degree.

Now, they enrol in an integrated five-year university programme leading to an M.A. university degree with 300 ECTS credits. The introduction of these changes has opened possibilities for further development of postgraduate and doctoral studies in this area. Although it is still too early to evaluate the effects of these measures, some positive trends regarding the quality of enrolled students can be observed. For example, more graduates from secondary schools are taking entrance exams, more of them come from prestigious secondary schools than before, they arrive with better grades from their previous schooling, they show better results in the entrance exam, and also for most of them the teacher education faculty is their first choice which was also not the case before. These observed positive effects require further, more rigorous institutional research to be done.

Another important novelty is the introduction of postgraduate specialisations, master and doctoral studies in the area of primary

teacher education. In recent years there has been an increase in scientific research in the area of teacher education accompanied by the significant interest of young researchers in this field. In the near future the accumulated research results could also be a useful input for making a quality improvement in initial teacher education.

In Croatia, subject teachers who teach in the upper grades of primary school (grades 5 to 8) and in secondary school are traditionally educated at university level. The Bologna Process has also brought about significant changes in their initial education. Students now enrolling in study programmes leading to an M.A. degree for subject teachers study in two cycles (3 + 2), whereas before they used to enrol in four-year programmes. The former initial subject teacher education programmes were based on the simultaneous model. In that model the emphasis was on academic contents and educational studies were neglected. Research data reveal that in the simultaneous model only 7% to 12% of the total study programmes were devoted to educational sciences, teaching methodologies and school-based practice (Vizek Vidović et al. 2005). As part of Bologna Process reforms, a consensus among higher education institutions has been reached about adopting a consecutive model with 60 ECTS credits comprising courses in educational sciences, teaching methodologies and practice in schools. In other words, the first cycle of study is now oriented to academic contents and teaching competencies are developed at graduate level. The issue of prospective subject teacher education is more controversial than class teacher education. The discussion is now considering whether the more appropriate model for subject teacher education would be 4 + 1.

3.2 Quality assurance of initial teacher education in Croatia

In Croatia, as in most European countries (*Quality Assurance in Teacher Education in Europe,* 2006) there are only general regulations for quality assurance for all higher education institutions and they also apply to institutions and programmes for initial teacher education.

3.2.1 Accreditation and external evaluation

Since 2004, the accreditation and external evaluation process has been somewhat changed by the most recent *Law on Quality Assurance in Science and Higher Education* passed on 6 April 2009. This new Law regulates the procedures of initial institutional accreditation,

institutional re-evaluation, thematic programme evaluation and institutional audit (evaluation of the quality management system). These procedures are implemented by the National Council of Higher Education and the National Agency for Science and Higher Education. The biggest change Compared with the former by-law (2004) refers to the initial accreditation and evaluation of university study programmes. In accordance with the concept of university autonomy, new study programmes will be approved by a decision of the university Senate. The decision will be based on the internal accreditation procedure performed by the university quality assurance board. Each study programme proposal will be examined regarding the requirements defined in a special new by-law approved by the minister.

The focus of the National Council of Higher Education and the National Agency for Science and Higher Education will be on accreditation and periodical reaccreditations of higher education institutions as well as audit procedures.

3.2.2 Internal evaluation

Since the Bologna Process started to be implemented a significant step has been taken towards establishing internal quality assurance ('QA') systems. Universities have established university boards which act as advisory bodies for quality management for university senates. Such a QA board plans, manages and analyses the results of internal evaluations of different aspects of university functions and participates in the national network of the university quality assurance system. The main task of the university QA board is to advise and support members of the university constituents, i.e. faculties and academies in implementing and adhering to quality standards. The university QA board is supported by the University Office for Quality Management in its activities. Until now, one of this Office's main activities has been the annual administration and analyses of a survey concerning students' evaluation of teaching. The Office also supports different activities concerning quality improvement such as staff training and disseminating information on issues regarding benchmarking, European guidelines, standards etc.

At the level of university members quality assurance is enhanced by Faculty boards for quality management. The main tasks of these boards are: to develop quality indicators for study programmes, to monitor and organise self-evaluation procedures, to organise the student evaluation

of teaching and to upgrade the continuing professional development ('CPD') of academic and non-academic staff.

4 Activities relating to quality improvement in teacher education

Although there are no specific formal regulations about quality assurance in initial teacher education, since 2004 several projects have been initiated with the aim of developing a quality culture in teacher education institutions. These projects have mostly been developed at the national level and some have also had an international dimension. The main topics related to Bologna Process issues especially those raised within a Tuning project and its methodology of curriculum development. Two projects, *Development of a model for teacher lifelong education* (duration 2003/2005) and *Learning outcomes in initial teacher education* (duration 2008–2009), which will be further described in detail are examples of such an approach.

4.1 Project: *Development of a model for teacher lifelong education*

The project Development of a model for teacher lifelong education *started before implementation of the Bologna Process in order to enhance the quality of programme development in initial teacher education. Conceptualisation of that project preceded the EU initiative to integrate all educational projects into the lifelong programme 2007–2013. The project's main tasks were (Vizek Vidović, 2005):*

a) to analyse the relationship between the initial and subsequent forms of teacher education concerning their duration, scope and content as well as methods and conditions of implementation;
b) to examine the compatibility of teacher education with the theoretical basis and empirical findings of educational sciences;
c) to examine the perception of different stakeholders in teacher education concerning the adequacy of knowledge and teaching skills acquired;
d) to examine the relationship between the level of professional qualification and the professional identity of teachers; and
e) to compare teacher education in Croatia with the teacher education model of European Union countries and certain transitional countries.

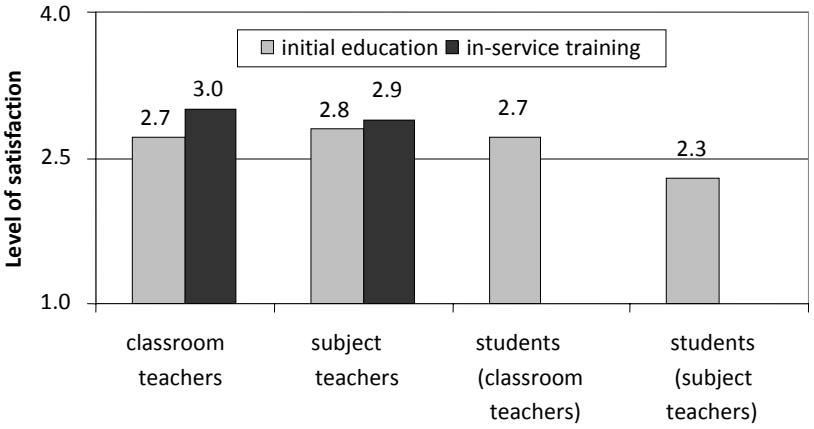
The study included different levels of analysis: conceptual, comparative and empirical. A qualitative and quantitative research methodology was used. The findings were used as the empirical basis for proposing meaningful changes and developments of classroom and subject teacher education.

This study is one of the first empirical researches in the area of needs assessment in teacher education. The study was conducted with different key stakeholders of the teacher education system. The participants were: 1,334 class teachers, 2,134 subject teachers in primary schools, 949 students (prospective teachers) and 62 university teachers at different teacher education institutions. The participants evaluated the quality and satisfaction with their initial teacher education. Among other things, they were asked to rate the degree of acquisition of 20 relevant teacher competencies as well as their satisfaction with their initial education. Some of these results are presented in the table and figure below.

Table 1. *Competencies acquired in initial teacher education with below-average ratings for different sub-samples (adapted from Vizek Vidović (2005). p. 97, Table 3.1 and p. 162, Table 3.11)*
(rank 1 indicates the lowest satisfaction level)

KNOWLEDGE AND SKILLS	CLASSROOM TEACHERS	STUDENTS (CLASSROOM TEACHERS)	SUBJECT TEACHERS	STUDENTS (SUBJECT TEACHERS)
Application of educational technology	1	11	1	3
Working with pupils with emotional and behavioural disorders	2	6	2	1
Working with pupils with lerning difficulties	3	5	3	2
Working with gifted pupils	4	4	7	6
School legislation	5	1	6	5
Communication and cooperation with parents	6	2	5	4
Education on human rights and civil society	7	8	8	10
Application of practical skills	8	7	10	7
Evaluation of educational process and self-evaluation	9	10	-	-
Classroom management	-	3	4	8
Development of ecological awareness	-	-	9	9
Development of pupils´ learning skills	-	12	-	-
Developing pupils´ ethical reasoning and behaviour	-	13	-	-
Pupils´ evaluation and assessment methods	-	9	-	-

Figure 1. *Level of satisfaction with the organisation of initial education and in-service training (adapted from Vizek Vidović (2005). p. 100, Table 3.2 and p. 165, Table 3.12)*



- Ratings are on the scale from 1 – lowest satisfaction to 4 – highest satisfaction
- Reported results are average ratings obtained on an 8 item-scale for initial education and a 7 item-scale for in-service training

The main results of the empirical part of the study are presented below in more detail due to their implications for implementation of the Bologna Process in teacher education regarding the whole system of teacher education, both initial and in-service.

1. Teacher survey results

The results of the survey of class and subject teachers in primary schools and subject teachers in secondary schools indicated a need to improve initial as well as in-service teacher training so as to prepare them for future complex and demanding teaching tasks. It was concluded that the core emphasis should be on the quality of the educational sciences programme and of school-based practice. Those programmes should offer more opportunities for prospective teachers to familiarise themselves with realistic classroom situations and possible problems, as well as ways of resolving those problems. There should also be a focus on competencies in the use of educational technology and working with pupils with special needs.

Since respondents clearly indicated that their initial teacher education did not provide all the competencies needed in their profession, the

need to improve the content and approaches to in-service teacher education programmes was also recognised. Apart from the various forms of in-service teacher training already offered such as seminars, workshops and lectures, teachers expressed great interest in postgraduate education in the area of educational sciences. They also emphasised the need for a better linking of in-service teacher training with promotion requirements.

2. Teacher student survey results

The results of the survey of final-year students at teacher colleges and faculties indicate that most of the conclusions from the teacher survey can also be applied to students. The students' results indicated a need to improve the quality of initial TED, with a special emphasis on competencies in communication skills and co-operation with pupils and other stakeholders in the educational process (especially with parents). Students also expressed a need for postgraduate education in educational sciences at the university level. The results also revealed that students were very much aware of what to expect upon entering the school/classroom. They had clear expectations about the need to improve school-based practice. They thought that they should have more opportunities to become familiar with potential critical situations in the classroom with their teacher-mentors serving as mastery models.

In the final part of the study a comprehensive overview of the systemic approach to transforming the teacher education system was given. It was concluded that the elements to which special attention should be given were:

- national legislative and standards for teacher education;
- a competence-based curriculum;
- a student-centred approach to teaching and learning;
- teaching, learning and assessment; and
- new areas in study programmes, such as: the use of ICT in education, civic education, students with special needs, classroom management and school violence.

The establishment of a quality assurance system in teacher education was also stressed. The key concepts proposed were the development of a quality culture in teacher education institutions, development of national standards for teacher competencies, definition of quality

indicators for teacher education, development of mechanisms for accreditation and evaluation of both initial and in-service teacher education programmes and institutions, procedures for induction and licensing of teachers, development of procedures of internal evaluations of institutions and programmes, and introduction of the continuous professional development ('CPD') of academic staff.

In retrospect, it might be said that the biggest findings of this study have been largely incorporated into the development of the new study programmes in initial teacher education introduced in 2005/2006 as part of the Croatian higher education reform enhanced by the Bologna Process.

4.2 Project: *Learning outcomes in initial teacher education* [2]

The project *Learning outcomes in initial teacher education* was prepared as a tool for improving the curriculum in the area of teacher education. In the following year (2010), the process of re-evaluating all university programmes in Croatia will start after the fifth year of implementation of the Bologna Process. Results of the preliminary university teacher survey concerning their experiences with implementing the curricula introduced in 2005/2006 show that they complain about teacher overload, a lack of skills in the student-centred approach to teaching, and difficulties defining teaching goals as learning outcomes. In order to address the needs that were expressed, a group of experts in the field of teacher education developed the abovementioned project.

The project goal was the development of a conceptual framework and methodology for defining learning outcomes as competencies in initial teacher education as well as supporting university academic staff in the defining, monitoring and assessment of learning outcomes.[3] The project was carried out by a multidisciplinary team of experts in educational sciences from the University of Zagreb, University IT Centre (SRCE) and the Institute of Social Research – Zagreb supported by a foreign educational specialist from Great Britain. The project's key results were:

[2] See http://domus.srce.hr/iuoun/index.php?option=com_content&task=view&id=13&Itemid=115

[3] The project has been supported by the Croatian National Science Foundation.

a) A framework for development of an institutional strategy for the planning, design and implementation of a competence-based curriculum in teacher education.
b) A manual for university teachers *Planning of Competence-Based Curriculum in Teacher Education* (Vizek Vidović ed., 2009), explaining the methodology for developing a competence-based curriculum. The theoretical background of this text evolved from social constructivism and cognitive models of learning. The key theoretical concepts elaborated in the manual were learning outcomes, competencies, constructive alignment of teaching, learning and assessment. The chapters of the manual cover the following topics: the Bologna Process and changes in initial teacher education; Curriculum – basic concepts; Competencies and competence profiles in the teaching profession; Learning outcomes and constructive alignment; Student load (ECTS); Quality assurance of study programmes, Example of curriculum development based on Bologna principles at the Faculty of Teacher Education, University of Zagreb; and Model of the development of a competence-based curriculum (http://domus.srce.hr/iuoun/UPraVO/Vizek-prijelom.pdf).
c) An example of development of a learning outcomes matrix for the teacher education module has been proposed based on the Tuning methodology.
d) A list of key teacher competencies obtained in a smaller-scale empirical research. The survey was based on a study carried out in 2005, as well as on the Tuning survey on teacher competencies administered to a sample of school and university teachers.
e) Three workshops were offered for university teachers from teacher education faculties in order to strengthen their capacities for outcome-based curriculum development and implementation. The first workshop dealt with the design of an outcome-based syllabus. The second workshop was oriented to elaboration of a model of a competence-based curriculum in initial teacher education, while the third one was about needs assessment and the development of university programmes for teacher CPD.
f) A web portal (http://domus.srce.hr/iuoun/UPraVO/) was developed as a resource for quality teaching and learning with an online counselling service for academic staff. The topics presented on the portal are: learning, students, curriculum, teaching, academic reading and writing, assessment, motivation to learn,

communication, teachers, IT in education, Bologna Process, useful links and journals, FAQ.

The results of the projects have been widely disseminated across the academic community and serve as an orientation not only for curriculum development in teacher education but also for other academic disciplines.

5 Conclusions

Although significant changes have occurred in the area of initial teacher education in Croatia, some issues remain to be resolved. In our opinion, besides general regulations of the quality assurance system in higher education specific quality assurance mechanisms in initial teacher education should also be developed. High quality teacher education is the basis of the overall quality of the education system and it is therefore necessary to establish national standards for teacher competencies as the basis for developing competence-based curricula in teacher education. Emphasis should be placed on the development of a quality culture within teacher education institutions in order to build capacities for high quality teaching, reflective practice and teacher self-evaluation skills. Specific indicators for the external evaluation of teacher education institutions and programmes should also be created. Continuous professional development programmes for academic and non-academic staff at all programme levels should be offered. Finally, the model of an integrated quality assurance system for the whole system of teacher education, both initial and in-service, should be developed and implemented.

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Improving Policy and Practice of Teacher Induction into the Profession

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ABSTRACT

Contemporary teacher preparation is envisaged as *a continuum of teacher learning* where the phase of induction into the profession is influenced by the quality of pre-service teacher education and in-service training. Moreover, teacher learning is associated not only with formal programmes and courses but also with informal learning opportunities (Schwille, Dembélé, 2007). To understand such induction, its organisation and contents, we are carrying out research (2008-2010) focusing on a comparison of policies and practices in three countries: France, Canada (Quebec) and Ukraine.

This contribution will analyse the case of Quebec. This system does not have any formal national framework for induction. However, since the early 1990s some school boards have offered induction programmes to beginning teachers. The features of these programmes include: collegial counselling and collaboration for developing beginning teachers' reflection and empowerment (COFPE, 2002).

Key words: beginning teacher, induction, comparison, policy, outcomes

1 Introduction

When describing the period of entry into the teaching profession various authors (experts, politicians, educators) use different terms which sometimes indicate the peculiarities of initial and in-service teacher training systems and the status of teachers in a society. These terms also show the priorities given to this period of a teaching career: accompaniment, collaboration with peers, additional training, beginning of in-service training, first stage of professional socialisation, adaptation to the professional environment, acquisition of a professional identity etc.

The conditions and status of beginning teachers vary from one country to another. In France, teachers have the status of a "civil servant" and national teaching concourses guarantee a permanent position and employment security during the entire teacher career. In contrast, beginning teachers in Quebec (Canada) have to accumulate 1,200 to 1,500 hours of teaching before gaining the post of a permanent teacher. Thus, they pass through this painful period by entering into a number of short contracts and it is thus rare for them to manage to become a long-term replacement. In the worst cases, this "precarious" employment situation can last up to eight years. In Ukraine, newly qualified teachers (NQT) also look for vacancies at schools themselves.

What is common to these three systems is that beginning teachers are finding the profession more and more difficult due to the changes in the student population along with poor organisational conditions of their support and guidance in the first years of teaching. In many countries teachers are quitting the profession at an alarming rate and those who persevere find little help from their older colleagues. Experienced teachers from the "baby-boom" years are retiring in large numbers and those with a few more years to complete have the privilege of working in schools with better job conditions. As a result, the transfer of knowledge from experienced teachers to beginners is becoming difficult. Newly qualified teachers usually start their careers in an unfavourable educational environment with inexperienced staff making up the majority of the teacher team.

In response to these challenges, national and European policymakers are endeavouring to improve the policy and practice of teacher induction into the profession. Thus, the European Commission (2007) suggests that "*…all teachers take part in an effective programme of induction during their first three years in post/in the profession; have access to structured guidance and mentoring by experienced teachers or other relevant professionals throughout their career; take part in regular discussions on their training and development needs, in the context of the wider development plan of the institution where they work*" (p. 13). The question arises of how to develop new mechanisms to facilitate teacher integration at work and to evaluate the efficacy of existing programmes.

The induction period was introduced in France in 2005. The French Ministry of Education calls for the organisation of beginning teachers'

support activities during the two years of independent practice. These activities include compulsory training sessions: four weeks in the first year and two weeks in the second year. In addition, academies are invited to develop other forms of teacher support like mentoring, individual and group consultancies (including virtual forms of them), short seminars etc. Quebec is an example of a decentralised education system and shows how induction can be provided in such a context. Indeed, in this Canadian province there is no official framework but the Ministry of Education advises school boards ("SB")[1] to develop means in order to support teacher integration. Finally, Ukraine inherited a structured system of beginning teachers' reception at school from the soviet period. Thus, all teachers have reduced teaching hours during their first years and they benefit from "pedagogical" help given by experienced teachers.

The professionalisation of newly qualified teachers and development of structured induction programmes is a recent phenomenon in teacher preparation and we would like to analyse it by applying a comparative perspective. In the following paragraphs the first conclusions of the case study in Quebec will be presented[2].

2 What is teacher induction in Quebec?

In Quebec, it is "a professional integration ("PI")" (in French: *insertion professionelle*) which Martineau and Vallerand (2005) define as "*a life experience at work which implies a process of adjustment and evolution of a novice teacher and which occurs while entering into the profession*"[3] (cited in Ndoreraho J.-P., Martineau S., 2006). The document of the COFPE[4] of the government of Quebec (2002) specifies that PI "*concerns the beginning in*

[1] A school board (in French *commission scolaire*) is a form of regional government which deals with pre-primary, primary and secondary public education.

[2] The research in Quebec was supervised by ProfessorLiliane Portelance, LADIPE, University of Quebec à Trois Rivières (UQTR)

[3] Our translation. In the French version: *une expérience de vie au travail qui implique un processus d'adaptation et d'évolution chez le nouvel enseignant et qui se produit lors des débuts dans la profession.*

[4] COFPE: Comité d'orientation de la formation du personnel enseignant: Council for orientations in teacher education.

the profession and the entry in a process of continuous learning for all teachers" (COFPE, 2002, p.18).

According to Mukamurera, Bourque and Gingras (2008), professional integration is a complex phenomenon. These researchers identify four interlinked dimensions of professional integration which present challenges for beginning teachers:

- *integration as access to employment* ("the administrative meaning"): characteristics of the job, status, duration, social advantages etc;
- *integration as access to the workplace:* the nature of work, details of functions; the link between professional preparation and the realities of teaching; the workload, conditions;
- *integration as entry to an organisation:* relations with colleagues, adaptation to the education policies, professional and organisational culture; recognition by one's peers as a member of the community; and
- *integration as the acquisition of professionalism:* learning a professional role, the development of professional knowledge, skills and competencies, becoming autonomous.

For other Quebec researchers professional integration in teaching is a threefold process: construction of knowledge, skills and competencies; socialisation at the workplace; identity transformation (Vallerand, Martineau, Bergevin, 2006). This stage in Quebec can last from one to seven years. The integration ends when a teacher becomes adapted to their professional environment and becomes efficient and independent. Nault (2007) adds that it is over when a teacher reaches a certain level of confidence and competency.

Nault refers to other researchers who believe that teachers acquiring a new post are also in the induction stage: "*there are three categories of new teaching personnel: teachers who are beginning, those who are continuing, and those who are returning*" (Gibson and Hunt, 1965 cited by Nault, 2007, p.1). According to Martineau and Vallerand (2005), this process can affect teachers who immigrate to another country and have difficulties adapting to a new school culture. That is why it is important to take all these profiles of "beginning" teachers into consideration while developing professional integration programmes and support activities.

3 History and policy of teacher induction in Quebec

At the end of the 1960s a system of probation was set up in Quebec. During that period, teachers' vacancies were rare and beginning teachers entered the profession through short-term and part-time contracts, and often with a long period of professional inactivity. The probation system prepared new teachers to do their job and, at the same time, evaluated their professional skills. Gervais (1999) explains that only the objective of teacher evaluation was taken into account and it was performed by administrative authorities. However, this researcher notes the existence of aid initiatives for beginners on behalf of experienced teachers but "*without organisational support and collective will of reception*" (Gervais, 1999, p.13).

A reform in 1992 lengthened teacher education by one year and meant that 700 hours of educational practice (field observation, student teaching, internship etc.) are spread over four years of pre-service education. The increase of practice at schools has allowed policymakers to abolish the probation period because it is considered to no longer be useful. Teacher education and training target the acquisition of 12 professional competencies and their development in three interrelated stages: pre-service education, professional integration in teaching and in-service training. Students leaving university obtain a degree in teaching which recognises their professional qualification. However, the professional competencies of beginning teachers remain insufficient. Professional integration activities have been introduced at schools to support the entry of teachers into the profession.

In order to accompany that change, the Ministry of Education of Quebec ("MEQ") financed research projects to study the training needs of actors and to propose support activities for beginning teachers (Gervais, 1999). However, according to COFPE (2002): "*Since then* (the reform), *any official document was published on the subject to ask the school boards to elaborate a policy or an action plan relating to the integration in teaching, on the one hand; any financial support was given for the implementation of training activities or support actions to educational establishments or school organisations which had implemented activities of accompaniment, on the other hand*" (COFPE, 2002, p.12).

However, during 1993/94 and 1994/95 the Ministry supported experiments in some school boards to set up integration services. A professional conference entitled "From probation to professional integration" (1995) was also financed by the Ministry. It enabled those working in the PI area to disseminate the results of the experiments. Moreover, in the same year the Ministry presented two working papers on the orientations and ways of implementing the PI activities (COFPE, 2002).

Thus, the Ministry's initiatives and recommendations helped some school boards develop professional integration projects. However, the absence of permanent funding in the following years led to the PI projects being abandoned. A few boards continued to support the projects based on their conviction and comprehension of the benefit of those programmes for beginning teachers and for the quality of pedagogical work in related establishments.

Currently, a few school boards have and apply professional integration programmes in both primary and secondary education. Even fewer boards do this in partnership with universities in order to assure the transfer of teacher knowledge from pre-service education into practice.

4 Access to permanent employment: "probation controlled by the employer"

Since the teacher education reform of the 1990s, a degree in teaching, "*baccalaureat*", acquired through four years of professional preparation at university attests to the definitive and permanent qualification of teachers. Yet this "*permanent qualification*" does not give direct access to *permanent employment* and "*permanent teacher*" status. The school boards select their new teacher-employees according to a list of "*priority employment*". The rules which determine candidates' access to this list are negotiated locally between education authorities and teacher trade unions. In general, school boards require a teacher to obtain a full-time contract for two years and it is only the third year of the contract's renewal that gives access to the list and, thus, a permanent post. Other boards admit teachers who have accumulated more than 80 days of annual work in two years or 1,200 to 1,500 hours of teaching to this list.

However, very few newly qualified teachers obtain a full-time contract after graduating from university. The process of professional integration is much longer and often occurs according to the following stages (MEQ, 2003):

- access to the list of temporary replacements (a candidate sends a CV to the SB which can evaluate their knowledge and skills through tests and interviews);
- occasional temporary replacements (a contract of employment is not signed);
- part-time contracts or contracts "*à la leçon"* (a long-term replacement);
- access to the "*priority employment*" list; and
- full-time contracts and permanent employment.

In general, beginning teachers pass through this painful period by entering into a number of short-term contracts of replacement, changing several schools and educational environments. Moreover, in Quebec teachers are asked to teach several subjects, even those they did not prepare for at university. This adds the related preparation time and increases stress, especially among the beginners (Gervais, 1999). Further, school boards use this unstable period of a teacher's career to evaluate and select the best candidates for permanent positions. Even those who earned a university degree in teaching pass extra exams in the subjects of teaching, didactics or ICTs. Beginning teachers are also supervised by the school authorities who visit lessons and write reports for the SB, including analyses of their practical skills.

In fact, the realities of acquiring permanent employment in Quebec reveal an ambiguity between two parallel processes: the process of a secured and guided induction to refine teaching skills on the one hand, and the process of the evaluation and selection of beginning teachers for permanent posts on the other. Consequently, the organisational and administrative conditions for entering the profession can have a negative impact on the professional integration and professionalisation of beginning teachers. At the same time, this "economic dimension" of integration is not the only obstacle to a successful induction. Professional, social, psychological and identity dimensions also influence a teacher's feeling of "*being professionally integrated*" (Portelance et al., 2008). Beginning teachers believe that mastery of teaching skills, integration into the "school team", professional and social recognition, security of employment and well-being at work are important indicators

of professional integration (Mukamurera et al., 2008). Teacher induction programmes may be one way to support and facilitate the integration of beginning teachers.

5 Rationale for induction programmes

Induction into the teaching profession can be seen as a process of accompaniment, extending the limits of pre-service education and creating links with in-service training. Thus, according to Lamontagne, Arsenault and Marzouk (2008), professional integration is a period of learning and socialisation which helps a novice teacher become an experienced professional. School organisations are advised to address this issue through the development and provision of induction programmes.

The goals of induction programmes may differ:
- to persuade beginning teachers to stay in the profession;
- to facilitate the transition from trainee status to that of a competent teacher;
- to enable teachers to apply their existing knowledge and skills and to further develop and refine new competencies;
- to develop and maintain highly qualified personnel in a position; and
- to train and respond to the professional needs of beginning teachers.

The study of different induction programmes by Lamontage et al. (2008) shows they have common objectives such as "*support, success, satisfaction, teachers efficacy as well as transfer of knowledge about educational policy and school organisation*" (Lamontagne, Arsenault and Marzouk, 2008, p. 191). Totterdell et al. (2004) point out that it is essential for the purposes of induction programmes to be related to those of policy, and the goals of induction programmes to be related to practice. These researchers add that "*to achieve clarity around purposes and goals, and to work out the implications takes time and therefore developing effective induction programmes based on sound research, high standards of performance and ethical conduct requires a lengthy process of piloting, evaluating and refining induction programmes*" (Totterdell et al., 2004, p.3).

Research undertaken in different countries (Arends and Rigazio-DiGilio, 2000; Totterdell et al., 2004) identifies several common components of induction programmes:

- training sessions and workshops;
- orientation and information about policies, procedures;
- mentoring and peer-support groups, including virtual forms of them;
- opportunities to visit and observe the lessons of other teachers;
- access to resources and teaching materials; and
- guided feedback and self-evaluation.

A consensus exists among researchers on what is quality induction and what works in induction. First, the design of induction programmes should be research-based, linking the theory acquired in pre-service education with the realities of practice at schools. The best induction programmes go beyond "survival tips" for novice teachers, e.g. how to keep order in the classroom. They concern issues like curriculum, assessment, instruction, school culture, self-evaluation, and professional reflection. Another important point is that the programmes work where beginning teachers have a reduced teaching load and less difficult assignments compared to their experienced colleagues. Further, new teachers need opportunities for collaborative planning, goal-setting and feedback from experts. Finally, mentors, or other professionals accompanying beginners, require selection, preparation, release time and incentives (Totterdell et al., 2004).

The research literature illustrates the importance of informal support and enculturation for success of induction programmes (Feiman-Nemser, 2003; Wong 2001, Portelance 2008). Beginning teachers often look for someone they can rely upon in the school and, sometimes, they require simple emotional support and encouragement from their colleagues. That is why the school culture and professional relationships clearly impact their initial teaching experience. Strong teacher teams, promoting collaboration, collegiality and problem-solving, facilitate beginning teachers' professional integration. Authors here use the term "*integrated professional culture*" to describe an effective support environment in which exchange is possible among teachers with different levels of experience. In such teams beginners can develop a sense of unity, educational values, belonging to a community and teamwork. The advice and explanations beginning teachers receive may

impact their attitudes to students, the teacher's role and future professional development orientations.

As regards another factor, an effective delivery system, authors (Arends and Rigazio-DiGilio, 2000) point out the considerable variation seen in how induction programmes are implemented on national and regional levels. Human and financial resources vary from one region to another and from one school to another. Thus, where decisions are left to local actors in programme structure and content terms there are fewer novice teachers who have access to induction activities and these activities greatly vary in quality. Moreover, policymakers are often confused about what constitutes an induction for novice teachers. This leads to frequent changes in legislation, regulation and funding concerning induction. According to Totterdell et al. (2004) "*political and financial support is essential at all levels and must translate into realistic resources, if propitious conditions for induction are to be achieved*".

6 Induction programmes in Quebec

Formal induction programmes are a recent phenomenon in Quebec. The absence of a national framework for induction does not prevent school boards, schools and voluntary teachers from working out activities to support beginning teachers. The COFPE study (2002) shows the diversity present in the design and implementation of professional integration programmes. The size of a school, the environment of the school board, the socio-educational characteristics of this environment, and the available resources influence the activities that are chosen. This study reports that only 35% of the school boards had set up or wanted to set up activities concerning professional integration in 2001-2002. The most common components of these programmes were:

- individual meetings between beginners and experienced teachers (66%);
- specific assistance (53%);
- *parrainage*, mentoring or tutoring (52%);
- the choice of a "resource person" (26%);
- "discussion groups" (26%);
- information or training during pedagogical days (25%);
- workshops (25%);
- a network of mutual aid (13%);

– activity relating to professional ethics (10%); and
– group support on the Internet (7%).

These activities are annually evaluated in order to make improvements for the following year. The budget remains modest and school boards are obliged to call on other sources of funding, i.e. from pre-service or in-service trainings. In addition, it is noted that the existence of these activities does not guarantee the equitable access of all teachers: the activities are not suited for some of them; places are limited in training workshops; and there are problems of geographical distance and the replacement of beginning teachers participating in training..

However, these first activities of support and training for novice teachers coupled with the development of collaborative research on induction[5] in Quebec has further contributed to more attention being paid to these crucial years of a teacher's career. A special provincial structure "CNIPE[6]" has been mandated by the Ministry to co-ordinate, monitor and support the development of PI programmes. The Ministry's intention remains unchanged: to make local actors responsible for a meaningful and effective induction.

First results of the case study in Quebec (2009)

The research in Quebec in April and May 2009 confirms the absence of a provincial framework for teacher induction into the profession. The decentralised approach to induction policies leads to considerable variation in the nature and content of the programmes. Thus, our study has identified three different types of induction programme:

– ***Case 1***: a PI programme developed and supported by the school board.
– ***Case 2***: a PI programme developed and supported by the school authorities.
– ***Case 3***: a PI programme developed and supported by individual/experienced teachers.

The first case represents a "classic form" of induction programme developed at the regional level. It is a long-term, extended programme

[5] LADIPE – Laboratoire d'Analyse du Développement et de l'Insertion Professionnels en Enseignement
[6] CNIPE – Carrefour National de l'Insertion Professionelle en Enseignement

of multiple support for beginning teachers which is a central element of the professional development policy. As the school board is situated in a favourable environment (proximity of universities and research centres), the programme's designers could benefit from "scientific advice" from the university. However, the person responsible for induction reports that few university teachers actually participate in the training sessions as their interventions are very expensive. Most trainers are selected from the SB's staff, pedagogical advisers and experienced teachers. The structure and contents of the programme are substantial: information and reception at the school and the SB; training sessions for mentors and beginners; accompaniment/mentoring; anonymous guidance; *journal de bord,* feedback. Besides, special attention is given to immigrant teachers who are beginning their experience in Quebec. They can participate in training sessions which concern the cultural, social and educational peculiarities of this education system. Although a structured induction programme is evidence in this region, some problems with its implementation in schools exist. The interviewees mentioned that school authorities are not always aware of the problem and ignore the need to develop support activities in teacher teams. In addition, calls are made with regard to the need to have an induction co-ordinator in schools to assist in disseminating the programme's ideas and activities.

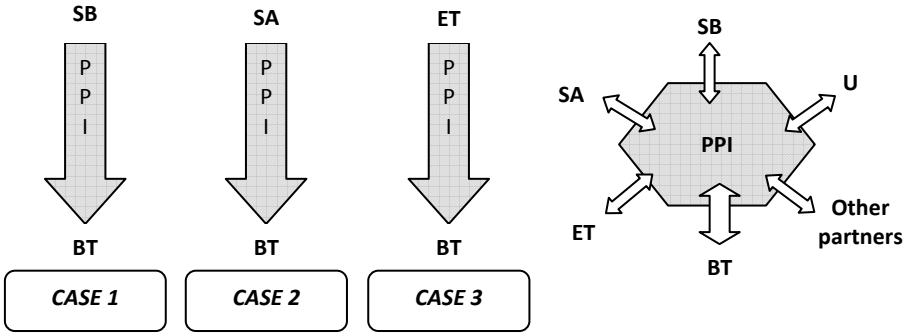
Two other cases of PI programmes are identified in the school board without any official policy on induction. They show how support activities for beginning teachers can be developed inside schools: by school authorities and by individual teachers. It seems that the goals of these programmes are the same: to facilitate the professional integration of novice teachers in schools. However, for the school authorities (case 2) the PI programme is also a means to guarantee the continuity and stability of employment at the school. In addition, PI activities (mentoring, class visits) enable school authorities to "keep an eye" on the work of beginning teachers.

In contrast, the activities initiated by experienced teachers in case 3 may be characterised as an informal network of support for beginners. The two persons responsible for PI express a desire to remain independent of any educational authorities and any formal framework of induction. They explain that this strong autonomy helps to secure novice teachers from the evaluation and selection presented in the process of accessing permanent employment in Quebec. Further, an "administrative and

formal induction" could increase teachers' work (extra meetings, reports, duties), which is already overburdened. What is clear is that case 3 is an example of "teacher empowerment": experienced teachers with a high level of professional consciousness take responsibility for the professional development of their novice colleagues.

Mentoring is the main component of the PI programmes in cases 2 and 3. The guide of mentoring is elaborated and release time for mentors is offered during the school year. However, it is important to note that these programmes do not include other components referred to as essential in the literature: systematic training of mentors, guided feedback, training sessions for beginning teachers etc. In addition, they do not receive any support from the university trainers and the evolution of the programmes remains modest. Indeed, these initiatives confirm that the professional integration of beginning teachers is an important concern of local actors. A gap exists between PI activities coming up from "the bottom up" and the absence of a response from the school board. Schools and teachers are waiting for a comprehensive policy of induction in the region which could co-ordinate the work of the different actors, disseminate best practices, give financial support etc.

Finally, the programmes of professional integration ("PPI") in the three cases are constructed like a lineal process. As shown in the following figure, collaboration is limited between possible providers of the programme: the school board ("SB"), university trainers ("U"), school authorities ("SA") and experienced teachers ("ET"). At the same time, the research on teachers' professional development proves that only a "dynamic interaction" between different actors can make a significant difference in the implementation of programmes and improve the quality of support for beginning teachers in schools (Ling and Mackenzie, 2001). The partnership model for teacher induction into the profession could change the culture of educational organisations (school, university, school commission) and might encourage experienced and novice teachers to participate actively in this crucial stage of a teacher's career.



7 Conclusions

Formal and informal induction programmes have been developed quite recently in Quebec. The decentralised approach to policy on beginning teachers' professional integration leads to considerable variety in programme design and implementation. Still, many teachers do not receive any support or training during their first years of professional practice: programmes are not available in their schools or their administrative, "non-permanent" status does not give them access to training workshops. However, the absence of clear decisions at the provincial and region levels on one hand, and the growing difficulties of beginning teachers in carrying out their jobs on the other, enables experienced teachers to take responsibility for the professional development of their younger colleagues. Interest in induction and awareness of the situation of beginning teachers has never been greater in the educational community. The Ministry of Education is calling for the use of induction programmes by every school board as a means of retaining and accompaniment of new qualified teaching staff. Moreover, it supports the development of collaborative research on induction by funding scientific projects carried out in partnership with local actors.

Are the problems of Quebec's system (unclear policy, poor funding, inequality of beginner teachers' access to induction, absence of release time and eased workload, confused status of beginners, variability in programme provision etc.) culturally- and context-specific? Can they be identified in other countries? We look forward to the next steps of our research in France and Ukraine. We hope to continue our comparative

analysis of policies and practices of teacher induction into the profession in order to understand what can improve the professionalisation of beginning teachers.

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Part 3

ADDRESSING SPECIFIC ASPECTS of Teacher Education in Europe

I as a Teacher – Recognising the Patterns of Identity Building in Primary School Student Teachers' Stories

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ABSTRACT

The study describes how student teachers understand the teacher's role and analyses how this understanding develops in different stages of their studies. The student teachers in the sample were following the primary school teacher curriculum at the Haapsalu College of Tallinn University. For the purpose of our study 38 student teachers from all years of study (from 1st to 5th year) were asked to narrate about themselves as teachers. The study utilised a cross-sectional qualitative design where patterns and characteristics of different cohorts were identified and analysed. The aim was to improve teacher education and the professional development support provided within it.

An inductive content analytical procedure was applied in order to interpret the data and to produce descriptive categories. Four categories were formed based on what appeared to be the core issues in the stories: the view of the teacher's role and own sense of teacher identity; the motivation to become a teacher, and readiness for professional development; discrepancies between the ideal and the experienced situation; and experiences with the theory-practice integrated programme.

The data indicated certain patterns were present throughout the studies. By the end of the first semester the student teachers are more focused on personal aspects of a teacher's identity. In the middle of their studies the students begin to worry about professional knowledge and how to apply that knowledge. By the end of their studies, the student teachers feel confident while recognising the professional domains regarding which they need to develop themselves further. They realise that the teaching profession requires lifelong learning and a will to engage in constant learning. These findings have an important impact

on how to manage the teacher education programme so as to balance student teachers' learning processes and support their identity-building.

Key words: teachers' preparation, student teachers' identity, identity building, narrative

1 Identity building and teacher development during initial teacher education

Teaching is an occupation that involves not only professional competence but also the teacher as a person. For this reason, professional and personal development are important parts of teacher education. The study describes student teachers' understandings of the teacher's role and analyses how this understanding is expressed in different stages of their studies. We approach the student teacher's perspective through identity building and perceptions of oneself as a teacher. The aim is to improve the teacher education programme and the professional development support provided within it. For teacher education programmes, teacher educators, administrators and policymakers the teachers' stories are significant authentic research data and development tools.

Initial teacher education as a relatively long and important phase has received a lot of attention over recent decades. In addition, criticism has targeted the relevance of the knowledge obtained through education, while several studies have focused on finding new approaches to integrate theory and practice and to support the reflection processes and identity building of student teachers (Argyris & Schön 1974; Lortie 1975; Levin 2003; Korthagen et al. 2006).

Feiman-Nemser (2001) argues that the central task of learning in initial teacher education programmes is the need to analyse existing beliefs and to form new visions and understandings of learning and learners. According to Kagan (1992:150), pre-service and first-year teaching appear to constitute a single developmental stage during which novices accomplish three primary tasks: (a) acquire knowledge of pupils; (b) use that knowledge to modify and reconstruct their personal images of self as a teacher; and (c) develop standard procedural routines that integrate

classroom management and instruction. Terms and concepts such as *image of self as a teacher*, *professional/teacher identity* and *professional self* all focus on continuous "becoming". The construct of professional self is an ongoing developmental process and can be influenced by school, reform and a broader set of social and cultural contexts (Lasky 2005: 901, Cross & Gearon 2007: 54). According to Sachs (2003), "teacher identity stands at the core of the teaching profession. It provides a framework for teachers to construct their own ideas of 'how to be' and 'how to act' and 'how to understand' their work and their place in society. Importantly, teacher identity is something that is neither fixed nor imposed; it is negotiated through experience and the sense that is made of that experience" (ibid. 126). Further, Wenger (1998:149) argues that "there is a profound connection between identity and practice. Developing a practice requires the formation of a community whose members can engage with one another and thus acknowledge each other as participants".

Both of these authors emphasise the continuous change of identity and the important role of practice in identity development. It is evident in initial teacher education and continues throughout one's career.

Teacher identity has been described as a vision of oneself as a teacher, self-evaluation, the meanings that a teacher ascribes to their activities, and an understanding of what are the norms according to which the teacher's profession is described and evaluated. In practice, questions that pertain to these components of identity are: How do I describe myself as a teacher; How good a teacher do I believe I am; What motivates me to work as a teacher; and What are the tasks of the teacher?

Researchers have attempted to identify elements that influence teachers' identity building. Beijaard et al. identify four features that relate to identity formation (Beijaard et al. 2004). First, professional identity formation is an ongoing process of the interpretation and reinterpretation of experience. Second, professional identity implies both person and context. Third, a teacher's professional identity consists of multiple sub-identities (or "selves") that are more or less harmonised. The more central a sub-identity is, the more costly it is to change or lose that identity. Fourth, agency is an important element of professional identity, meaning that teachers have to be active in their processes of

professional learning. Already during initial education one's previous experience as a learner and the long *apprenticeship of observation* during one's schooling (Lortie 1975) have a powerful influence on identity building. Student teachers have already formulated views on what teaching is like and how it is done. The challenge is to become aware of this former knowledge and focus on how to change it.

Identity building is a core question in student teachers' professional development (Bullough & Gitlin 2001). Identity building is also emphasised in the first stage of Fuller's (1969) stage model. According to this model, in the first stage of teacher development the student teacher expresses concerns about self, and the main doubt at this point is what kind of teacher one will become. Gradually, the focus shifts towards the teacher's tasks and teaching skills and finally towards the students' learning and the impact of teaching in terms of students' development. The stage-model of development has been elaborated by other researchers and many have emphasised the need to develop professional identity to understand a teacher's role and mission as a precondition for becoming a teacher. In order to explore questions about teachers' beliefs, values and mission, reflection is necessary and it simultaneously supports the student teacher's identity building.

Intrinsic motivation facilitates student teachers' engagement in tasks that enhance learning, reflection and identity building. The development can be very different depending on whether the underlying incentives are mainly intrinsic or extrinsic (Ryan & Deci 2000). For teacher educators the motivational aspects imply that initial teacher education should challenge student teachers at a suitable level in terms of their existing knowledge, skills, interests and motivation (Calderhead 1989). In addition to personal factors, Glatthorn (1995) identifies contextual and structural factors that influence the teacher's development. Contextual factors include organisational and societal aspects, whereas the so-called structural factors include the initial teacher education curriculum. There is no doubt that the teacher education curriculum has a great influence on becoming a teacher.

2 The primary school teacher education programme at the Haapsalu College of Tallinn University

In order to contextualise our study, we describe the teacher education programme the students study. It is important to understand the context in which the students of our sample study as there are currently two initial teacher education models in Estonian universities: the mono-phase or integrated model (primary school teacher education) in which professional and subject studies take place concurrently, and the two-phase or consecutive model (for subject teachers) in which a two-year programme on teacher education takes place after the completion of three-year subject studies. Our research is placed in the mono-phase context, which is likely to facilitate teacher identity and professional development in a different way than the two-phase model.

Framework Guidelines for Teacher Education prescribe the volumes and requirements of initial teacher education through in-service training (*Õpetajate koolituse raamnõuded* 2000). Primary school teachers earn a master's degree (300 ECTS credits) with education as the major. This degree qualifies them to serve as a primary school teacher at comprehensive schools in grades 1 to 6, teaching almost all subjects in these grades.

The aim of initial teacher education is to develop basic professional competencies as a prerequisite for the induction year and to develop a readiness for future in-service training acquiring the following competencies in primary studies:

- a readiness for self-reflection and self-regulated learning;
- competence in subject and didactics methodology;
- a readiness to create a favourable learning environment and lead a learning process, taking into account that a great deal of learning is taking place outside the school building;
- a readiness to apply scientific research methods in a learning process and environment analysis and to apply research results in practice; and
- competence in communication skills.

Attention is paid to the content in educational studies and its implementation in practice, to guarantee the student teachers'

professionalism, to reinforce the role of initial teacher education in the university and to develop in-service training for academic staff. Pedagogical practice proceeds from the idea that it is a long process to become a teacher, whereby a support system and guidance play an important role. Emphasis is on co-operation with practice schools and on the development of a mentoring system.

The general purpose of teaching practice is to provide students with the opportunity to acquire practical professional skills and knowledge in a school environment and to reflect on the skills and knowledge acquired. Special purposes are: to perceive the learning and educational processes of the school as an integral system; to perceive and form skills related to pedagogical and subject didactics; to develop self-evaluation skills; and to realise the importance of learners' extra-curricular activities and co-operation skills. Teaching practice is a spiral process occurring throughout one's studies, starting from theoretical studies and the acquisition of professional skills and moving towards more complicated levels. The practice period starts with observation practice in the second year and ends in the fifth year with teaching practice in a minor subject.

Observation practice begins already in the first year of studies. Student teachers become familiar with the school as a developmental and developing environment and documents of educational policy. Students also practice conducting lessons or some parts of them. Teaching practice in grades 1-3 is conducted during the third year of studies and is divided into two parts: 1) during the autumn semester, students practice as teaching assistants in grade one, experience adjustment to the school and develop co-operation skills; 2) during the spring semester, students practice as teachers conducting lessons and performing class teacher's duties. In the autumn semester of the fourth year of studies, student teachers practice in grades 4-6. The purposes of teaching practice are to provide the experience of conducting lessons, working with pre-teenage children, and co-operating with parents. The teaching practice in the minor subject consists of teaching in grades 7-9 of basic school. Such an arrangement is possible thanks to a well-integrated master's curriculum where the completion of teaching practice in different stages ensures the simultaneous application of theoretical knowledge in practice.

3 Methodology: exploration of narratives

We set out to analyse student teachers' identity development and how their identity building is expressed in different stages of the studies. Stories in teacher education serve a dual purpose: they offer pre- and in-service teachers possibilities to reflect on their professional development and to learn from their beliefs, values and teaching practice. The sample consisted of student teachers undertaking the primary school teacher education programme at Tallinn University Haapsalu College. The study involved all students at all course levels (first to fifth year). The number of students participating in the research was 38 from a total of 48 students in the programme. The actual number of respondents consisted of those students who were present at the time of collecting the data.

In this research, the student teachers were asked to write a story about themselves as teachers. The topic was "I as a Teacher Today", implying that what one is today may not be what one was yesterday or may become tomorrow. Thus, in order to write about the topic students were implicitly guided to position themselves on a journey. Understanding what one is today may require the comparing and contrasting of the sense of who one is with prior experiences of oneself or with ideals that one may strive towards. The students were given a free hand. With such an open narrative topic it was up to the students to choose what to write about and what to exclude (cf. Kyratzis & Green 1997). It is beyond the scope of this research to analyse the decision-making and the exclusions students made in their stories. We focus on what is included in the stories, i.e. the features of their identity the students wish to reveal. No guidelines about the length of the story were given. The stories were on average one and a half pages in length, with the minimum length being half a page and the maximum two pages.

We did not, however, apply a narrative method to the data analysis. Rather, we approached the data from a content analytical perspective. This is because we wished to form a coherent picture of the main themes and topics for students from each cohort instead of identifying types of stories or narrations among the students. Content analysis is suitable for analysing unstructured, qualitative data such as diaries and narratives and is appropriate when data are elicited through broad questions rendering unstructured information. We applied an inductive content

analytical procedure in order to produce descriptive categories of the student teachers' experiences of themselves and their teacher education. Through the categories we attempted to describe the phenomena in a condensed and general form (cf. Weber 1985; Marshall & Rossman 1995). We identified expressions that pertained to the experience of oneself as a teacher or to one's development during their teacher education. We then transformed the expressions into condensed descriptions, which were grouped together according to thematic un-predefined categories. Categories and sample data are provided in the Appendix.

The data were collected and initially analysed by the first and second authors. First, one of these two authors independently identified the themes and then they were verified by the other. As the main themes were identified, supporting evidence from the narratives was chosen and quotes provided to illustrate the themes. At this point, one of the two authors, together with the third author of this paper made clarifications of the themes and first together and then the third author independently analysed the evidence chosen to illustrate the themes.

Due to the small number of students in each class it might have been possible for the teacher who collected the stories to identify the individuals behind them. This may have influenced how the students portrayed themselves as teachers. The same applies to the fifth-year students who were asked to include their stories in their practicum report. Social desirability (Tuckman 1972; Morgeson & Campion 1997) may have led the students to describe themselves in more positive terms than what they actually felt as teachers. Also, the existing teacher-student relationship may have increased social desirability effects. Simultaneously, the existing relationship may have facilitated engagement in deeper and more critical reflections of their own experiences. In addition, in the stories the students pondered on their worries, fears and own shortcomings in a way that appeared genuine and honest, running counter to the interpretation that social desirability effects could have contaminated the data.

Inter-rater reliability was 84%, indicating there was some disagreement on the categorisations of the data. The percentage can be explained by the fact that, when the theme categories were clarified in the second

round of analysis, it resulted in re-interpretations of some of the evidence.

The two authors who collected the data and did the initial analyses were involved in teaching the students and had established teacher-student relationships with all cohorts. The third and fourth authors were not involved in the data collection and were in no way connected with the students. We see that this combination of involvement with the student sample on one hand and the lack of involvement on the other provided a fruitful basis for the analysis with an in-depth understanding as well as analytical openness.

Ethical considerations

The total number of research participants was fairly good for a qualitative study of this kind. Yet, the fact that the number of students in each cohort was small requires us to consider certain ethical issues.

All students present at the times of data collection chose to participate. The students were informed of the research initiative and all of them gave their consent to be involved. The stories were anonymous. However, due to the small number of students in each class it may have been possible for the teacher who collected the stories to identify the authors, leading some students to be more cautious in their writing.

For the most part, the data collection took place in connection with course work in class, except for the fifth-year students who were asked to respond via e-mail or add their narrative to their practicum report. The data collection was arranged in this manner as the fifth-year students did not have any course work left at the university. For them, the narratives were not anonymous and this placed them in a different position. They had the option of not participating but, again, with the small number of students in the fifth year it may have been easy to identify non-participating individuals which also may have made them feel more obliged to respond.

4 Student teachers' identity building through the curriculum

The central themes that emerged in the narratives describing the students' views of themselves as teachers or their experience of teacher education were labelled as follows:

- View of the teacher's role and own sense of teacher identity
- Motivations to become a teacher, and readiness for professional development
- Discrepancies between the ideal and the experienced situation
- Experiences of the theory-practice integrated programme

When looking at each cohort at a time, we could identify a pattern regarding cohorts. How the students described themselves as teachers in the first year differed in some sense quite significantly from the descriptions written by the fifth-year students. It is this pattern we attempt to shed light on in our following analysis, using the quotes provided as evidence.

In the first year the students' views about teachers were mostly based on idealistic assumptions associated with the teacher's personality. There were also references to the responsibility of a teacher, i.e. guiding young people in citizenship, and teaching being a rewarding and therefore a desirable job. The students realised that they are at the beginning of a developmental journey:

> You cannot become a teacher in five years. The necessary pedagogical skills and knowledge are acquired during the practice of the teacher profession.

At this point, the students were also revisiting their motivations to become teachers:

> I cannot wait to get in front of the classroom to test myself (teacher practice). I am waiting for the didactics' courses to get the knowledge for how to pass on my wisdom. During the lectures I tried to imagine myself in different situations to get an idea if I can make it. You only have to wish and put some effort in it.

They may be justifying their choice to enter teacher education or they may be mirroring their expectations against their actual experience, comparing these with each other. Their expectations and actual experiences may differ and they try to consolidate their expectations with what is taking place in their teacher education. Worries and fears are not so much present at this point. Instead, the stories convey a picture of optimistic and eager students wanting to learn more about the work of a teacher.

In the second year, the students begin to focus more on the teacher's actions. What does the teacher do, and what is he or she supposed to be doing? There is a kind of exploration of the boundaries of a teacher's work present in the stories. It may be difficult to define who one is as a teacher, if the lines are not clear as to what teaching is and what it is not. Clearly, the students' perspectives of the many facets of the teacher's work are rapidly broadening, perhaps as a result of the first practice experiences. As with the first-year students, there is optimism and cheerfulness, as shown in the quotes below:

> I am a teacher who is committed to every student, who evaluates individuality, uses tips from alternative pedagogy, who goes to work with a smile on their face and leaves the schoolhouse smiling.

Reflections on the personal motivations for commencing teacher education shift towards how the students themselves experienced teaching while pupils and how these prior experiences are similar to or different from their current experience. We can detect a continuum in this topic from the first year, or it may be that this question surfaces at different points for different students. Nevertheless, it appears to be something which defines the student teachers in the early phases of their studies. The students realise that they have learned a lot and the teacher education programme has supported their professional and personal development. In terms of self-efficacy, the students tend to move in either a positive or a self-doubting direction.

> I have collected many thoughts about my future job, so much positivity and will, so that in three years I will be a perfect teacher, just like I imagined.

> Currently, I am afraid of children, myself and my skills. I have doubts about my abilities and knowledge, but there is one thing I know for certain – I want to become a teacher.

Students who expressed concern about their ability to cope with classroom situations and disciplinary issues appeared to exhibit more self-doubt and questioning. This, however, may not be an indication of negative self-efficacy, but a sign of some of the reflective processes characteristic of this phase in the student's development towards teaching competence. It may also be an indication of deeper reflective processes related to identity work.

An interesting question is why the students mention disciplinary problems in the classroom as they have not yet had practical experience and are unlikely to have been exposed to serious situations of this kind:

> Perhaps I would get into trouble with how to organise work in the classroom – to make students work and give them the necessary knowledge. I still dread discipline problems. I am afraid of being walked over.

It appears that much of the doubting and uncertainty may be a product of the stories of the more experienced teachers. Part of this questioning may involve figuring out how theory and practice are related. The label disciplinary problems may actually be a way to conceptualise issues that in fact arise from circumstances other than pupil behaviour. Disciplinary problems may also work as a label for the teacher's personal fears and feelings of uncertainty. The feelings of uncertainty may be ambiguous without a clear focus, whereas disciplinary issues provide a relatively understandable, plausible and concrete target for the fears. Another explanation may be that the students experienced these problems themselves while still pupils in school. The students may have felt that disciplinary problems were caused by the teacher's lack of experience. They may have seen the teacher's struggle in these situations, and felt empathy towards the teacher. Now, when they are themselves entering the teaching profession their prior experiences are activated.

As the students move towards their third year, they appear to exhibit a realistic view of the joys and challenges of the teacher's work. At this point, the students have already had some practical experience as they

have practiced in schools for approximately two months. These experiences are at best empowering for the student teacher and support the development of a teacher identity. The practice appears to be a significant learning experience for most students and, as such, a strongly positive experience reinforcing their wish to become teachers.

> Being a teacher – this feeling is fantastic. The thing that I am doing is exactly what I should be doing.

> Right now, I am more a teacher than ever; this is confirmed by positive experiences from the practice.

In their stories, the students express a search for their own personal and individual ways of being a teacher. They realise they cannot simply copy other teachers, but they have to figure out their own ways of teaching. Part of this realisation is likely to involve the need to understand the pedagogical justifications that underlie the choices teachers make. It also reflects a growing pedagogical awareness in the student teachers. The following teacher feels that she will find her way of being a teacher once she gets to explore her opportunities and limitations in a teaching situation, the planning of which she has been in charge of herself. There is clearly a need to figure out the boundaries of one's pedagogical understanding and test it empirically:

> I don't see a teacher in myself yet because I haven't been able to give a unique lesson.

The student teachers want to find fresh and creative ideas that they feel reflect themselves as teachers. They have experienced the joys and challenges of the job and simultaneously realise there are many personal resources at stake in the teacher's work:

> I understood that being a teacher is one of those professions that will exhaust you in the end. You won't know how to relax.

The student teachers think about their own ways of coping and sustaining in a demanding profession without burning themselves out. Again, we can ask how much of this concern is based on stories they have heard from more experienced teachers, how much is based on their

own practice experience, and to what extent their concern is influenced by their own experiences with their teachers while still at school.

When students are in their fourth year, they begin to express more and more child-centred pedagogy in their stories of themselves as teachers. This appears to be a logical step in the process of growing pedagogical awareness. They exhibit an increasing concern for the kind of experience their pupils will have with them, and they wish to make the pupils' school experience a positive and empowering one:

> I know how to value a child and a study process. I have made myself clear that we possess a huge power to change something in children's lives and generally in the field of education. A teacher with a golden key creates opportunities, with which they touch every student.

The student teachers express concern about facilitating change and making learning possible, but instead of focusing on themselves as teachers in this process their focus has shifted to the learners, i.e. the children. Here there appears to be a clear shift in focus compared with the narrations of the second-year students. The pedagogical understanding of a teacher's work appears to mature sometime around the third year of studies, for some perhaps a little later and some a little earlier. Nevertheless, the teaching practice appears to play an important role in the development of a pedagogical understanding and adopting an approach to teaching which truly focuses on supporting pupils' learning. As pointed out, during the third year the student teachers first assist and then conduct lessons and perform a class teacher's duties on their own. The students acknowledge the role of the university studies and the teacher education programme in their development as teachers:

I have a quite realistic picture of the teacher's job and how important it is. "Yesterday" I thought that I could teach just coming straight out of my school desk. Today, it is quite humiliating to admit such thoughts from my youth. I have acquired much knowledge about teaching different subjects and I've also changed my views of the school world.

They also compare their prior understandings about teaching and how to become a teacher with their current experiences from the programme including teaching practice, and they realise that their views have

become more complex and mature. At this juncture, references are made to what they thought about teaching at the very beginning of their studies and often the difference is quite drastic.

In their fifth year, the students express an ever deepening child/learner-centred approach whereby they have integrated didactical knowledge in order to form a full comprehension of what teaching is all about.

It is important for me to know how to guide students on their way. I can appreciate a situation when the teacher doesn't answer the students' questions right away. It is important to guide them; it develops their independence and skills to get along in life successfully.

Part of this understanding relates to the realisation that being a teacher requires continuous learning. The students view the need for continuous development positively, anticipating the opportunities of learning their future jobs will offer them:

The teacher's job develops continuously and offers challenges, and that's why it engages me. The just finished practice gave me more confidence and I realised how good it feels to develop continuously.

The students express at this point a strong motivation to start working in schools. They draw on their professional knowledge and they can relate this knowledge to actual teaching work. In a sense, the following quote shows that the student has successfully integrated the theoretical and practical aspects of a teacher's professional knowledge:

> I feel quite good in front of the classroom because I have acquired good didactics, methodical basics and much practice over the five years.

The experiences from practice periods are often mentioned as a resource that student teachers draw upon when discussing their relationship with their profession and the teacher education programme. It appears that the practice periods integrated throughout the teacher education programme support not only the development of professional knowledge but also the development of a teacher identity.

The past practice has helped me get to know myself as a teacher and I can see that everything impossible during the first school practice is more realistic. I feel that I am confident in front of a class.

Their concerns mostly relate to issues of time management and a heavy work load, how to combine family and work life and, again, disciplinary issues that appear to emerge from past fears.

> Earlier I worried about how I can get through my lesson, now I worry about my students and the way we get to our results together. However, as a young teacher, I also have some fears and questions. My weak spot is a lack of confidence in solving discipline problems. I am afraid of being unfair and not taken seriously. I don't know how seriously a teacher should take things.

Overall, the student teachers frequently mention the change they have experienced in themselves as future teachers and as persons. At this point in their studies, they are able to reflect upon their development over a period of five years and can pinpoint phases that have induced change.

> I have changed a lot since the first year – both knowledge and experience levels.
> To be honest, I could never have expected what kind of changes this profession demands from me.

The practicum is one of the most important eye-openers allowing the students to take significant steps forward. It is during these phases that the knowledge accumulated up to that point is consolidated and integrated in the multifaceted teacher identity.

5 Discussion and implications for teacher education

Prior research (Fuller 1969) has identified stages that beginning teachers go through as they enter the teaching profession. At first, they focus very much on themselves as teachers. The second stage entails focusing on skills and methods. In the third stage the focus turns towards the learners and how to support the learning process. Our research indicates

that students in teacher education go through similar stages, starting from a focus on oneself and moving beyond the immediate self towards the methods and skills of the teacher in the second year of studies, after which the focus turns towards the pupils' learning. Although this was not a longitudinal study, we are confident that we may draw some conclusions about typical issues in the student teachers' identity at different points in their studies. We realise that the developmental and identity-building processes may vary from individual to individual. Therefore, the programme structure and the practice periods provide important anchors against which we can mirror the data and our interpretations of it. We discuss the development process in terms of the categories identified in the data and outline implications for teacher education.

The view of a teacher's role and sense of teacher identity among the student teachers has changed over the course of the past five years of teacher education towards a clearly articulated learning-centred approach to teaching in which the teacher's main role is to facilitate the learning of pupils. In some ways, the understanding of pupils' learning is related to the student teachers' understanding of their own learning processes. At the beginning of studies the student teachers exhibited a more teacher-centred view of the teacher's tasks in the classroom, including the delivery of knowledge and direct instruction. As the own teacher identity developed, views about the teacher's role shifted from a focus on the teacher/teaching towards pupils/learning. There appeared to be a change in how one's own teacher identity was described.

For teacher education, the crucial question is how student teachers experience their own learning. The focus in the programme needs to be directed at supporting students' own learning, and the experience they have of themselves as learners. Teacher educators need to be aware of the different approaches to teaching in order to be able to not only facilitate student teachers' learning processes, but also to model good teaching-learning processes for the students.

Students appear to express a high intrinsic motivation to become a teacher throughout all years of study. There is, however, a slight difference in expression. Students from the first year separate motivation and the views of their role as a teacher, whereas motivation and teacher identity become more integrated among students further ahead in their

studies. In the first year of studies, students express that they feel they have "something in them", perhaps a characteristic, ability or some aspects of personality that would make them a good teacher. Their focus is on a willingness to change the world. This tendency becomes stronger during the studies and the students in their final year seem to *feel* like a teacher already, their motivation is evident in their expressions of their own sense of teacher identity. They also express a readiness for professional development more than students from first years of study. The students from the final year express a strong motivation to begin work, although they acknowledge they still have a lot to learn.

The students from the first year do not distinguish between the ideal and the experienced reality of teaching. Yet, the more they learn, the more worried they seem to become. Alternatively, they realise the limitations of their knowledge and understanding as they reach higher levels of the course. Students from the second and third years mainly express worries about how to handle real-life situations. Many feel they fail in handling disciplinary problems. When the students have the possibility to practice more, they start talking about their experiences and most of the fears they used to have leave room for just one main concern – a lack of time that does not allow them to behave like they imagine a good teacher would. Some students express a concern they might be unable to handle such a situation and decide not to choose the teaching profession because they feel the job is too exhausting. Many students also note their immaturity in thinking they were ready to teach at the beginning of their studies. In initial teacher education we, as teacher educators, should pay attention to student teacher motivation in becoming a teacher and their first practice experiences. If the students are motivated then, even if they experience some difficulties, they are still willing to learn from their experiences. The task the students need to perform should require moderate effort and support their self-efficacy beliefs. Our data suggest that time-management issues should be addressed especially during the practice and fourth and fifth years since this seems to be strong de-motivating for the teacher profession among student teachers who have had the possibility to practice for longer periods.

The discrepancies between the ideal and the experienced reality in terms of becoming a teacher appeared to involve students' self-efficacy beliefs. Some students exhibited a firmer belief in their ability to become a

teacher, whereas some students exhibited more self-doubt and worries about different aspects of the teacher's job, including their own ability to work as teachers and disciplinary concerns. It is important that a teacher education programme provides sufficient support for those prospective teachers who have concerns and possibly a lower sense of self-efficacy. Doubting and worrying may also be part of their self-reflective process, in which case it is important that they receive support.

For the teacher education programme the results imply that the practicum should be arranged in an environment that optimally challenges and supports the student teacher's development. This is particularly important for those students with stronger doubts and possibly weaker self-efficacy beliefs. The practicum may, for this group of students, be a potentially empowering experience at its best, but support and supervision are nevertheless necessary elements of the programme. It is vital at this point that these students have positive experiences that support their self-efficacy beliefs and professional development. It could be argued that all student teachers benefit from positive practicum experiences, but that the reality of the teacher's work may be quite different from the empowering experience student teachers gain while having full access to the support structures of the teacher education programme. Yet, we firmly believe that the way in which the reality and actual teacher's work is perceived relates to the students' sense of self-efficacy and experience of being in charge of their work as a teacher. Teacher education programmes can support the sense of efficacy in student teachers by providing positive, strengthening, yet real and authentic experiences. The key is which kind of mechanisms are in place for providing support to young teachers.

The way the students described themselves as teachers and their development during their teacher education often boiled down to the issue of their experiences of the theory-practice integrated programme. The points at which the practice periods take place appear to be optimal: the students have enough knowledge, competence and understanding of themselves as persons in order for them to take full advantage of the practice period. If the practice were to take place earlier on in the programme, it might not fully serve its purpose in supporting students' development as teachers.

The implication for the teacher education programme is that the studies best serve their purpose when integrated, yet they should have a solid enough theoretical foundation to provide a springboard between practical experience and the student teachers' self-reflection. Arguments have been presented in favour of starting practicum periods already in an earlier phase. Our data, however, support the notion that reflection is most fruitful when the student teachers have some foundation of knowledge to reflect on.

We believe that researching student teachers' professional identities continuously during their studies serves dual purposes: it develops teacher educators and supports student teachers' identity building. This is one possibility for breaking away from reproductive practices in teaching and teacher education.

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The Teacher as Researcher and How to Develop Research Knowledge among Students – Teachers in the Czech Republic

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ABSTRACT

The article focuses on an analysis of the essence, purpose and meaning of teacher research, research competence in the teacher profession and possibilities of research-based orientation in academic primary teacher education. In the Czech Republic, the universities in charge of teachers' pre-service training are conducting action research on the new programmes which have been set up. The goal of the research project, whose methodology and results are described in this paper, is to evaluate the validity of the Model of Reflective Teaching with Elements of Action Research and its possibilities to support student teachers' development of research skills.

Key words: teacher as researcher, action research, teacher research, teacher profession, professional knowledge

1 Introduction

The decentralisation trend of contemporary school policy is being accompanied by a systematic *curricular reform* on all levels of education in the Czech Republic[1]. The related growth in the pedagogical autonomy

[1] The new Education Act that came into effect in 2004 treats the system of curricular documents by introducing a bipolar, participative national curriculum that now features three levels: *The National Education Programme* (the so-called "White Book") – a system project formulating the ideal starting point, general aims and the essential joint core of education. *The Framework Education Programme* (for pre-primary, primary, the lower and higher secondary levels of education) – which specifies general binding state requirements (a binding educational framework with aims, content and anticipated results) for individual levels and disciplines of education. *The School Education Programme* – created by teachers, is a binding curricular document for the school. The programme specifies key categories in a way that respects the framework education

of schools is bringing increased demands on the professionalism of teachers, who are now becoming not only the *creators of the school curriculum* but also, simultaneously, its *self-evaluators*.[2] The past five years have witnessed a surge in the intensity of professional discussions among teachers and pedagogy experts concerning the issue of "new" professional competencies and especially the role of teacher as creators of the school curriculum and teachers as evaluators and researchers. The current discussion also addresses the issue of *action research as a type of teacher researc*h having an immediate relationship with processes of self-evaluation; in addition to the teaching profession, a great deal of attention is also being paid to the pre-graduate education of teachers on all levels of schools, which in the Czech Republic is incorporated in university and master's degree studies. In the Czech Republic faculties of pedagogy at universities provide the undergraduate training of teachers. The studies last five years and the preparation of primary school teachers is unstructured (without a division into bachelor's degree studies for three years and a connected master's degree programme for another 2 years). This study programme is criticised especially for its excessive focus on theoretical preparation and the small share of direct pedagogical practice. Upon graduating from the master's degree programme teachers become fully certified for the given level of education, without any mandatory subsequent postgraduate theoretical or practical education – a problem with the teaching profession that has been discussed and left unresolved for years in the Czech Republic.

2 The theoretical background of teacher research and the professional model of the teacher-researcher

The initial theoretical-practical thesis used to define the importance of the research dimension in models of professional competencies is related to the declining professional status of teachers and to a similar certain danger involving their university and master's degree preparations[3].

programme while simultaneously taking into consideration the specific conditions of the school and the needs and interests of students, parents and teachers.

[2] The Education Act likewise establishes the requirement for schools to *evaluate* the School Education Programme, to compile their *self-assessments of the school*.

[3] Despite the fact that university master's degree preparation of teachers has been in place in the country for nearly 50 years, political inclinations have emerged to reduce

We assume that, if teachers are to be *experts in the field of education,* they will have to use continually acquired knowledge to professionally justify the procedures and results of teaching processes, which requires teachers to have a theoretical and practical understanding based not only on critical theoretical study and systematic comprehensive reflection, but also objective results of teacher research of an action, evaluative type.

In the Czech Republic the concept of *teacher research* is not incorporated in the area of school practice – the professional roles and activities of teachers – nor the field of pedagogical methodology. In a way, research is becoming a necessity in the teaching profession along with the new education law and the requirement of schools and teachers to perform the self-evaluation of school education programmes[4]. Instead of the research competencies of teachers, there is a focus on reflective, diagnostic and, rarely, evaluative skills in select systems of professional competencies. What is more, these terms and their meanings are used interchangeably; the meanings are not standardised. Similarly, the term *teacher research* lacks a firm standing in the terminology of Czech education research and when Czech experts[5] speak of research conducted by teachers in their own work, they use the equivalent term *action research.* However, *action research*[6] is employed as a research

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this preparation to the bachelor degree level, or to extend the possibility of uncertified teachers teaching at schools.

[4] As is the case with "teacher research", the terms "evaluation" and "self-evaluation" do not yet have a firm footing in pedagogical terminology; as a result, teachers do not exactly know what is expected of them and tendencies are emerging to reduce the professional demands on the realisation of these processes – that it concerns some type of regular self-reflection, a permanent dialogue on the problems of schools etc. We regard these attempts as undesirable since we define self-evaluation of the school and teacher as a type of teacher research, with all the attendant demands on expertise.

[5] Walterová (1995); Janík (2005); Švec (2005); Kasáčová (2005)

[6] *Action research* – also translated as behavioural research – has a long history. The term was defined in the middle of the last century by the social psychologist Kurt Lewin, who tried to show the practical importance of science and scientific research leading to the implementation of meaningful changes in social reality and the long-term control of their effects. According to Lewin, action research is "*comparative research of conditions and the effects of various forms of social behaviour, as well as research leading to social conduct. Research that results in nothing more than scientific publication is insufficient. This does not mean, though, that the research prescribed above is in some regard less scientific or 'worse' than research for pure science in the*

strategy in many areas of professional practice – social work, medicine and health care, management etc. – and is therefore not the privileged domain of the pedagogical sciences and the relevant branches of education reality (Kemmis 1993; McNiff 2002; Sandretto 2007).

This interchangeable use of the terms "action" and "teacher" research occurs not only in the Czech professional environment. We can judge the preference for the selected equivalents from original sources. The term *action research* (in the field of education work) is used, for example, by J. McNiff, J. Whitehead, S. Kemmis, R. McTeggart, E. Ferrance, R. O'Brien (1998); on the other hand, *teacher research* is found in the works of L. Stenhouse (1975, 1985); D. Ebbutt (1985); M. Mohr (1980); C. Lankshear and M. Knobel (2004). The term *practitioner research* can be found in publications by the research team at the Faculty of Education, University of Cambridge – C. McLaughlin, K. B. Hawkins, A. Townsend and D. McIntyre (2004)[7]. We personally prefer the term *teacher research* and in the references presented below we discuss questions connected with its establishment in *education science terminology,* along with a meaning tied exclusively to action research and to the *qualification model of the teaching profession* (Seberová 2005, 2006, 2007).

One of the first to use action research in the education field was Stephen Corey from the Teachers College at Columbia University in the USA back in 1953[8]. Corey was convinced that the direct use of research methods in education could initiate changes since it draws the teacher into the actual research, as well as into the application of the acquired

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field of social phenomena. To the contrary, I am inclined to believe it is better" (Seebauer 2003:88).

[7] C. Mc Laughlin, K. B. Hawkins and A. Townsend (2005) from the University of Cambridge stated in one of their research reports a preference for the term *enquiry* as a research investigation conducted by teachers (they worked with a sample of 564 teachers). They collected a total of 9 terms that also occur in professional literature: *reflective practice, school-based enquiry, classroom enquiry, educational research, practitioner research, evidence-based practice, action research, investigation, action inquiry* (the expression "reflective practice" is most often connected with the term "research investigation" – *enquiry*, the least often *action enquiry*). But this list of terms is not exhaustive. Other terms such as *participatory research, collaborative inquiry, emancipatory research, action learning* and *contextual action research* etc. also appear in the literature (R. O'Brien 1998).

[8] Corey, S. M. Action research to improve school practice. New York: Teachers College Press. 1953. In Crookes 1993; Ferrance 2000; Sandretto 2007.

information and knowledge. Corey collected a great deal of information and thoughts on this new branch of research investigation. He assumed that the teacher's knowledge of results and the consequences of his teaching originating from action research make it possible to develop and change practices better than when teachers only passively understand, study or read that someone else discovered something about their own teaching. Corey believed that the value of action research is based on the change that occurs during everyday work; he questioned the practical significance of representative research that produces the generalised opinions and experiences of the "majority" of teachers and practitioners. He considered it necessary that teachers and academics work together to form co-operative teams (Crookes 1993; Ferrance 2000; Sandretto 2007).

The *teacher as researcher and scholar* model was also intensively developed in the teaching profession and the education of teachers in the USA during the 1980s and 1990s. In his publication *American Education* (1993), Spring pays closer attention to this model and points out, along with the experts who have already been introduced, the risks of previous concepts that regarded teachers as merely passive objects on which university colleagues could use the best instructions for improving their own teaching. This conviction also went hand in hand with the tendency of academics to provide teachers with concrete instructions and recommendations in the form of teaching strategies and education materials. However, these were so complicated and structured that some teachers were unable to use them at all. In addition, this approach gave teachers the function of some type of "technicians" whose main task was to implement the training methods and materials developed by "someone else". In contrast to this concept, the *teacher as researcher and scholar* model presumes that classroom teachers are in fact the most appropriate experts to conduct research for their own teaching methods and teaching materials.

Another important conviction of this model was that if teachers actively participate in the development of new curriculum documents, teaching strategies and teaching material, the level of their professional satisfaction would rise. Spring assumed that it is teachers actively involved in the experimentation and evaluation of implemented methods and procedures who are reliable experts of their own pedagogical work. Further, they are capable of effectively presenting the

results of their work and co-operating with other teachers, university researchers and the academic community. Teachers were seen by the authors of the concept as "scientific" experts who, by means of their own research, could develop strategies for their own teaching and teaching materials better than if they depended on outside help. The methods developed and tested through their own experiences and research could also be more effective. In addition to Spring, other experts have also addressed *teacher research*, which is the subject of lively discussion in the USA. These include, for example, Ebbutt (1985); Hopkins (1985 In: Parsons. 1997); Elliott (1991); Kemmis (1993); and Lankshear and Knobel (2004).

Lawrence Stenhouse was the author of the concept of *teachers as researchers* and a proponent of *action research* in the field of education in Great Britain in the 1970s (Rudduck 2001; McNiff 2002; McLaughlin, Hawkins, McIntyre 2004; Lankshear and Knobel 2004). In his article, *Teachers as Researchers: the Quiet Revolution* (2001), J. Rudduck discusses this period and its impact on contemporary approaches. *"The government tried to change education with big building blocks - a new curriculum, a new concept of evaluation – and used heavily financed projects for these purposes. However, we are trying to achieve something different in teacher research – something more substantial that has been developing gradually for many years, with progressive acknowledgement and national legitimacy. This is an important and extraordinary step – a quiet revolution"* (p. 58).

In support of teacher research, Stenhouse argued that curriculum research and development should above all be useful to the teachers themselves and that the political recommendations for resolving the problems of practical application cannot be dictated from above. The type of changes that are proposed should be those that the teachers themselves can test in their own pedagogical work. Traditional research has its own importance as long as it is accessible to teachers, has an influence on their teaching and simultaneously helps the quality of teaching and education. Stenhouse imagined a timeframe of 25 years for implementing such a vision. He was convinced that it was precisely teachers who could change "classroom life" by means of the deeper understanding obtained through teacher research. *"This gives practitioners new perspectives on routine aspects of everyday life, enabling them to see common, well-known concerns from a different angle and to see things in the eyes of a stranger for a moment"* (p. 60). Rudduck adds yet a third

important element in favour of teacher research: it leads teachers back to the essence of their profession – to students and teaching. A good school is not just a place for teaching; it is also a place in which teachers can reflect meaningfully on their own work. Research provides teachers the possibility of taking control back into their own hands; it enables them to evaluate the quality of their work, to examine and share their experience and to strive for professional improvement (Ruddick 2001; McIntyre 2004; Lankshear and Knobel 2004).

In summarising the key premises of teacher research, we can in particular point to its direct role in resolving problems arising from pedagogical work. It has an interventionist nature as the results of the research extend into the reality of the given professional area. The main goals include obtaining as much knowledge as possible about all of the processes and their contexts in actual work so that a broad range of inspired solutions can be postulated and proposed. We define *teacher research* as a process in which teachers/practitioners and other participants in school life evaluate in a managed, systematic, controlled (with clearly stipulated criteria) and critical manner their own pedagogical work, effects and processes tied to teaching by means of the strategies, methods and techniques of pedagogical research. The following attributes should in principle be respected:

- The research targets problems identified by participants themselves; the actual environment in all of its complexities is considered (the complexity of opinions on the effect of conditions and forms of social conduct). Teaching is evaluated, as are learning results.
- If the object of the research is actual teaching, effects are increased by internalising the needs of specific interventions; changes can be implemented in favour of the growth of pedagogical work quality.
- If teachers work together on "research teams," space is created for transferring "tacit knowledge" and the school becomes a "learning organisation", which subsequently fosters the growth of the professional confidence and even prestige of the teaching profession.

According to Ferrance (2000), action research conducted by teachers IS NOT "*the resolution of problems in the sense of looking for things that are bad; instead, it looks to uncover knowledge enabling qualitative growth. Action research isn't merely research on others or on people, but on searching all available information in order to find answers. Action research is not about discovering why we make certain decisions or why we implement these*

strategies, but about thinking about ways to do things better – what we can change so that our students can learn more" (p. 3).

On the basis of all the theoretical foundations mentioned above, we can define *research competencies* as an open and development-capable system of professional (declarative, procedural and contextual) research knowledge, approaches and personal prerequisites that are mutually connected and understood holistically that enable teachers to implement in their own work *teacher research* as a specific type of educational research. We base this on a comparative analysis of qualification/knowledge models of the teaching profession with regard to their research dimension from the selected approaches of Czech (Švec 1995; Lukášová 2003; Cisovská 2003; Vašutová 2004; Nezvalová 2005; Janík 2005; Kasáčová 2005; Göbelová 2006; Cabanová 2008) and foreign experts or theoretical concepts (Schön 1983; Spring 1993; Korthagen 1995; Foster, Gomm, Hammersly 2000; Schratz 2005).

3 Research of the process and the results of developing an elementary level of research knowledge in student teachers of primary education

As stated previously, the university education of primary school teachers in the Czech Republic has traditionally been conducted at the master's degree level.

The so-called *Model of Reflective Teaching with Elements of Action Research ("MRTAR")*, which is a component of the university preparations of primary education teachers, has become part of an innovative concept for the conclusion of studies at the Faculty of Education at Ostrava University.

The Model of Reflective Teaching with Elements of Action Research

The MRTAR is essentially a very close form of the action research project implemented in the environment of teachers' pedagogical work. However, it does not contain all of the key features of a research investigation and as such cannot be called research. Primary education student teachers implement the MRTAR directly during their concurrent

pedagogical practice (7 weeks), as well as during the course of their own teaching and other related professional activities. They systematically reflect on selected problem areas based on theory and work of primary education and attempt to describe, analyse and evaluate these using selected research tools. The entire system of educational tasks and related professional activities thus moves along the borders between *reflective teaching* (compare Wile, Zisi 2001; Farrell 1998) and *action research.*

We monitor the following goals in students by implementing the MRTAR:

- to increase the quality of the process and results of learning through the creation of conditions for meaningful learning. i.e. active, meta-cognitive, self-regulated and engaged learning;
- to enable students to create their own pedagogical works which, by means of their character and demands on the quality of processing, approach the research project of teacher research of the action type and thus;
- systematically develop research competencies as a system of capabilities for the preparation, implementation and evaluation of the research project; and
- through the individual phases of the MRTAR, facilitate the development of separate components of research competencies, i.e.: *the skills of critical and creative thinking and theoretical sensitivity, communicative proficiencies, social and ethical sensitivity, reflective skills and professional methodological knowledge.*

The MRTAR contains *three key phases* (*projective theoretical and projective methodological, implementation and reflective*), which the student completes during the three final semesters of studies; the student defends the written form (the so-called *Exercise Portfolio*) at the state graduation exams in pedagogy.

In phase 1 (projective theoretical) the student formulates a pedagogical problem[9] inspired by theoretical studies or from concurrent pedagogical

[9] Pedagogical problems can be formulated in the following manner: *What effect can co-operative learning and teaching have on the quality of the classroom psycho-social climate? How can the internal motivation of children be improved through formative assessment? How can we help children in the first class of elementary school adapt to new learning conditions and requirements using activating teaching methods?*

practice, proposes a procedure for a solution based on the study of theoretical sources, analyses the problem in a term plan[10] and compiles a theoretical abstract of key terms. For the practical research and resolution of the selected problem the student selects an appropriate research method and creates or modifies specific techniques as required (*phase 1: projective methodological).* Seminars give students an opportunity to defend the planned solution of the selected problem, while also providing valuable feedback from group discussions with other students and teachers.

A research investigation enabling the practical resolution of a pedagogical problem in the course of two concurrent professional internships (7 weeks) is an important experience for the student – *phase 2: implementing*.

In *phase 3: reflective,* students acquire the skills to analyse and interpret the data obtained using selected research methods and to formulate a response to the problem. Students attempt to integrate the obtained results and opinions from their own research with theoretical approaches to resolving the problem in the way set out in professional literature; the students search for examples from pedagogical project work. The creation and resolution of the pedagogical problem is therefore not merely a fictional exercise, but obtains a practical, realistic character that enables the student to test the extremely professionally demanding character of reflective teaching.

The research issue and its goals

The MRTAR was confirmed by the research problem addressed in the research project; a description and evaluation of its possibilities in the process of developing research competencies and a reflection on the quality of the level of the developing system of professional research knowledge as components of research competencies in primary education student teachers at the Faculty of Education at Ostrava University.

The *research goals* were structured on four key levels. The first of these was related to the *evaluation of the formal* MRTAR curriculum (the target and content point of departures, the operationalisation of teaching goals,

[10] Buzan (2008)

learning tasks and the activities of students in its individual phases). The second dimension of goals was aimed at determining the *quality of the developing system of professional research knowledge* of students studying to become teachers, by means of a qualitative analysis of the written and oral production of teaching activities (the Exercise Portfolio and the performance of the student at the state graduation examination in pedagogy). The third and fourth levels of goals were related to the *response of actual students* to the MRTAR (sources and causes of difficulties, the solution methods and sources of outside help; the subjective level of difficulty of individual teaching tasks; the meaningfulness of the MRTAR, its significance for the teaching profession) and to selected conditions of direct teaching facilitating the development of the research competency (the dimension of the teacher's personality and teaching of the subject), cognitive and motivational aspects of activation activity, the social dimension (social aspects of activation activity) and the self-reflective dimension, the personality-professional (the "I" aspects of activation activity).

Research methodology

A *comprehensive research strategy* was selected, and both *quantitative* and *qualitative* procedures of the analysis of studied effects and the collection of data were combined. The character of the research was specified as an *applied, descriptive and evaluation type of educational research ex post facto.*

The research investigation was carried out in *two key stages;* these were further divided into a total of five separate phases during the academic years of 2003-2005[11]. The first (pre-research) stage was comprised of a *basic group* of 71 full- and part-time students of primary education teaching who had passed the state graduation exam in pedagogy in the regular time. A total of 52 students participated in the second research stage (21 full-time and 31 part-time students).

*The research methods and techniques involved: a qualitative content analysis of the formal MRTAR curriculum (*the operationalisation of teaching goals, education tasks and the activities of students in its three phases –

[11] In the subsequent phase of this research we collected data in 2005-2009 from an additional 100 students; in this academic year we will analyse and interpret this data in an attempt to capture the development line of the studied effects of the MRTAR.

projective, implementation and reflective); a questionnaire for students for considering the creation and resolution of a pedagogical issue (MRTAR) (59 items in 4 categories formed a numerical bi-polar evaluation scale, a Likert-type scale, open items). *A qualitative content analysis* (Mayring 2000) *of the products of the teaching activities of students – the technique for indicating the quality of the written product (a qualitative technique with a graded structure – deductive categories),* the Exercise Portfolio *and the oral product (same technique)* – student performance at the state graduation exam in pedagogy; *a quantitative analysis of the term plan (part of the Exercise Portfolio*) – *the technique of positive and negative scoring* providing a level of elaboration of the term plan; a modified form of the standardised CLIC *(checklist of instructional characteristics*)[12] evaluation scale; (32 items in 4 categories – a Likert-type scale with an open item); an in-depth interview.

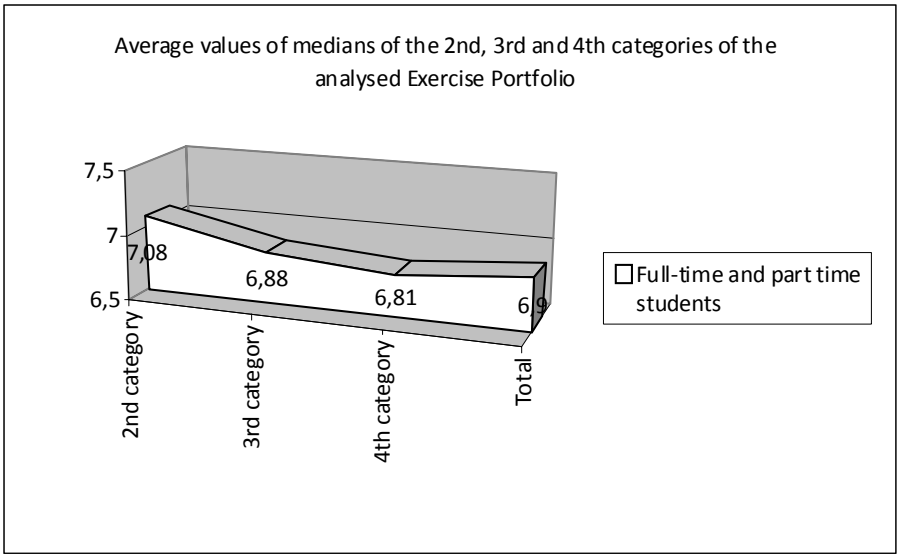
4 A discussion of selected results: How can the educational tasks of individual phases of the MRTAR facilitate the development of selected components of research competencies?

The study of professional literature in the MRTAR is more than mere rote learning; with respect to related tasks the study of this literature leads students toward the need for functional comprehension involving the critical comparison of diverse professional sources and thus fosters *theoretical sensitivity* (compare Straus, Corbinová 1999). Students also require this sensitivity in the subsequent implementation and reflective phases, as the research results have shown. The majority of students do not enter the final phase of defending their Exercise Portfolio at the state examination without regular theoretical study that helps the development of contextual knowledge, since it is based on reflective pedagogical work: "…it helped me become aware of practical information and convert it to theory…", "*It refreshed my theoretical understanding…"* (student) … "I am more focussed on the application of knowledge from the studied authors for managing the effective education process…" (student); *"…I had to read the book over and over, think about it, return again to information from research and then read again and think; then I finally understood"* (student).

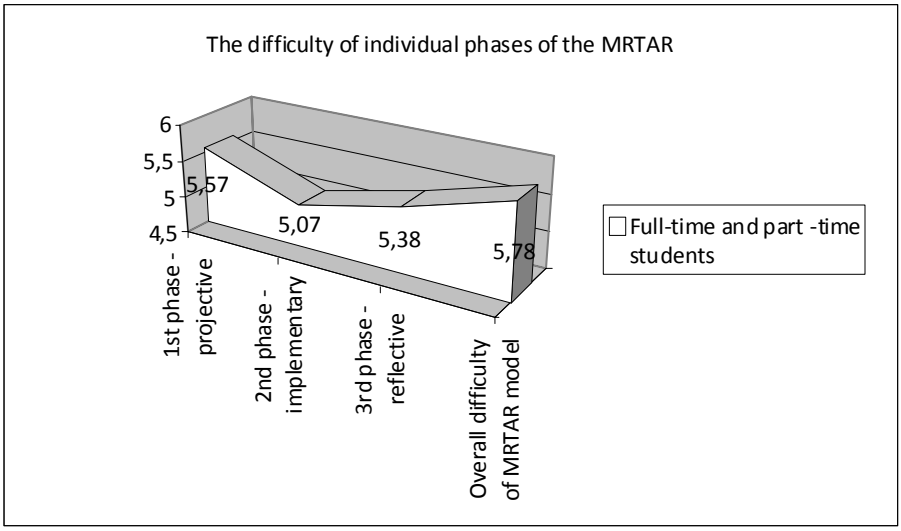
[12] Author R. G. Hoffman; Czech revision by J. Mareš (In: Švec; Šťáva 2002).

Let us take a look at the selected category of the Exercise Portfolio, whose quality was assessed using the technique of scaled structuring described above. Items relating to the first project phase of the MRTAR (1. content validity of the theoretical abstract; 2. the logical structure of the theoretical abstract; 3. placing the pedagogical problem in a broader theoretical context; 4. the professional level of the theoretical abstract) were around the 9th level of the evaluative scale (1 – lowest quality) in the qualitatively favourable range of 6.1 – 8.4 (Graph 1). The degree of subjective difficulty that students perceived in this phase was around the 9th level of the evaluative scale (1 – the least difficult) with a measure of medium difficulty (4.1 – 5.2) (Graph 2).

Graph 1



Graph 2



Professional methodological knowledge as one of the other key qualities of research competencies is related in this phase of the MRTAR to the items of *choosing the research method and the modification or creation of one's own research tools (with a view toward the nature of the assessed pedagogical effects and processes; the selection of the type of method, the formulation of individual goals).* We measured values of 3.5-5.6 in the quality of the written product in these categories, and the students perceived the subjective difficulty of these tasks with higher values, in the range of 6.0 -7.9. The students also confirmed the difficulty of these tasks in the in-depth interview. In order to assess the nature of the researched effects, to select the methods, the specification of its type and the creation of a research tool the students need a high degree of subjective assistance from a university teacher – the MRTAR consultant. A total of 86% of respondents confirmed this assertion in the questionnaire. The total level of subjective difficulty of *phase 1 (projective)* of the MRTAR had a value of 5.6; the quality of this category in the analysis of the Exercise Portfolios had a value of 5.6 (Graphs 1 and 2).

The realisation phase of the MRTAR helps *students to develop comparative skills and social and ethical perception* (compare Straus, Corbinová 1999). The research showed that one of the most frequently used research methods, besides questionnaires and interviews, is observation. A

majority of students communicated difficulties accompanying this seemingly simple research tool: *"…first I wanted to observe the entire class, but it wasn't possible to concentrate on the teaching and, at the same time, watch all of the students and record the results on paper; in the end I chose just a few students, but even that was challenging"* (student). The interviews with teachers, school management and parents help the student develop the necessary *communicative competencies and social sensitivity.* Looking inside the "private lives" of the students, their primary families and the "education world" of the teachers helps students think about the ethical boundaries of research. Students assessed the subjective level of difficulty in this *2nd realisation phase* at 5.1 (Graph 2).

The MRTAR fosters the development of *reflective skills* on all four levels as defined by Van Manen (1977). *Technical rational reflections* help primary decision-making on the subject of the pedagogical issue, its formulation into a problem question, the first attempts to visually capture the current status of individual understanding of the given professional subject on the term plan and to realise what I understand as a student and which professional sources I need to study. Students develop *contextual reflections* through the confrontation of theory and practice, resolving pedagogical problems with respect to personal and professional experience and the use of theoretical knowledge for intervention in work and solving the studied problems. According to Van Manen, it is in these situations that the teacher's *practical contextual knowledge* develops. The highest level, *reflection-critical*, is potentially developed by means of the previous levels. Critical reflection is realised in a broad social context and teachers apply deeply structured knowledge in this process. This is, including other theoretical sources, subjected to subsequent critical analysis which helps the teacher consider multiple alternatives for solving the problem, to decide on the implementation of appropriate different possibilities and to think about potential consequences. If, during the course of their undergraduate preparations, students are led to a detailed critical analysis of selected pedagogical problems on the theoretical and practical-research level, they learn, in addition to intuition, sources that allow them to base their professional decisions on highly professional principles and hence to build the professional status of teaching as an expert profession and, simultaneously, their own professional identity and confidence. We can compare these statements with selected results related to the *3rd reflective phase* of the MRTAR.

The evaluated items of the Exercise Portfolio were *the aptness and comprehensibility of the final written reflection, its arrangement and content validity, the meaningful and appropriate integration of professional theory into the resulting interpretation, the level of professional language, the meaningful and appropriate selection of examples from the concurrent pedagogical practice, and the understanding of professional terminology and professional theories.* Values ranged between 6.1 and 8.4; we recorded the lowest level of quality for the students' skills to functionally integrate insight from professional theoretical sources into final interpretations. The highest level of quality was the ability to appropriately select examples from pedagogical work; several students document procedures and the results of resolving the pedagogical issue. Students rated this final phase of the MRTAR with an average difficulty value of 5.4 (Graph 2). Specific difficulties here relate primarily to demands placed on the analysis and interpretation of obtained data. The students' first attempts at finding an answer to the issue often betray a tendency to evaluate data superficially, to assess the conclusions of the investigation in a simplified manner using the language of practice and a failure to include professional theory. Graphs 1 and 2 contain summarised data on the quality of the selected attribute of the Exercise Portfolio and the subjective degree of difficulty of resolving individual phases of the MRTAR.

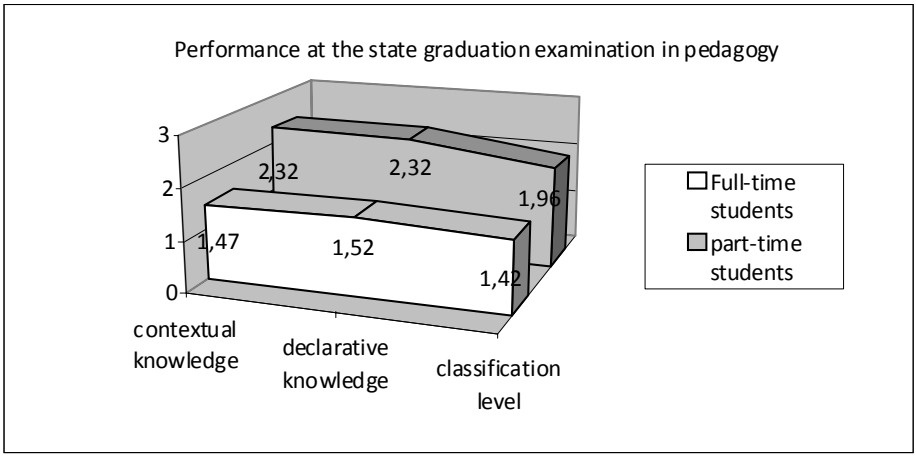
Professional methodological knowledge is the final principle named as a key condition for developing research competencies. Although the MRTAR contains only selected elements of action research, the individual stages of the model are similar to a classic procedure of research investigation. We emphasise with the students the methodological correctness of implemented research investigations; we guide them to realisation of the demands placed on action, evaluation research, especially on the benefits they can bring for their own teaching practice.

Let us try to justify these conclusions using the results of the qualitative analysis of another key product of the teaching activities of students we employed to assess the level of research knowledge development. This concerned the students' performance at the state graduation examination in pedagogy – the defence of their Exercise Portfolios. The tested research tool enabled the assessment of just two selected indicators of quality performance: *the level of mastery of professional contextual practical knowledge of pedagogy* (the student's understanding of

the theoretical context of the solved pedagogical issue on the basis of the reflected pedagogical experience; their understanding of the ties between the key concepts of the term plan) and *the level of mastery of professional declarative theoretical knowledge of pedagogy* (in the context of the solved pedagogical issue), without regard to the student's understanding. The two items were graded on a scale from 1 to 5, with 1 indicating the highest level of quality.

Graph 3 offers a clear comparison of the average values achieved by the full-time and part-time students in the categories of the levels of *contextual and declarative knowledge* and in the category of achieved classification degrees at the state graduation examination in pedagogy.

Graph 3



The analysed data showed a qualitative difference in the values of performance for the full-time and part-time students (in a similar way as the quality of the assessed items of the Exercise Portfolio). In the case of the level *of mastery of contextual knowledge of pedagogy,* the full-time students had a value of 1.47 and the part-time students 2.32. The difference of 0.85 on the 5-grade scale can be considered as having orientative significance, confirming the tendency of part-time students to produce a qualitatively lower performance. It would be desirable to investigate the causes of this difference. On the levels of both contextual and declarative knowledge the students of both forms of study have close values, which can clearly be explained as an indication that the

students have contextual knowledge representing a theoretical-practical understanding of the thematic range of pedagogical theory.

Implementation of the MRTAR, whose importance is strengthened by the defence of the Exercise Portfolio at the master's degree state examinations, opens a functional space for students to create *their own pedagogical works* where they can use the knowledge of the selected field of pedagogy, the activity-based knowledge of research work and, last but not least, professional self-reflection. Through its activity-based, professionally experiential character, the MRTAR creates conditions for meaningful learning with an active, meta-cognitive and self-regulated dimension. Students judge this output from their studies as *meaningful* (more than 93% of respondents) and also very highly rate *the importance of realised professional activities for the actual teaching profession* (more than 90% of respondents). These results are fortified especially with respect to the professional demands of individual education tasks and the amount of time they require. Again, more than 90% of students stated that implementation of the MRTAR helped them *understand pedagogical theory and research methods, and the importance of their use* (92%).

With its targeted starting points and content focus, the Model of Reflective Teaching with Elements of Action Research approaches a relevant research project of an action, evaluation type. As such, it enables candidate teachers to discover the demands and specifics of professional research activities. In conclusion, we can state that the MRTAR has great potential for the development of an elementary level of research competencies for candidate teachers and teachers themselves.

5 Conclusion

Teacher research: a possibility or a necessity?

In order to increase the prestige of the teaching profession it would be advisable for teachers to assume an increasingly greater level of public responsibility for the quality of the school curriculum, the development of the school organisation and the results of student learning. The time is right for these changes. Representatives of school policy are beginning to admit that the level of school education is not bound by centrally

defined standards but by the local conditions in which the school operates. As such, teachers could be given new specific roles in the area of monitoring the school curriculum, in the processes of teacher, self-evaluative research assessing the quality of fulfilment of these central goals. The creation of a school curriculum, its evaluation and the improvement of the quality of school life are new, desirable goals for all teachers, whose influence would therefore extend beyond the walls of the classroom. They carry with them a new dimension of professional competencies, new demands on systematic education. They place additional demands on teachers. The fulfilment of these goals requires internalised motivation to expand their own professionalism, a willingness to discover and understand complicated pedagogical phenomena and the complexity of the development structures of student personalities.

Questions concerning the quality of the research activities of teachers and their preparation and willingness to share in research activities in the school environment remain unanswered for now. Co-operation between university academics and teachers in the field is essential if these questions are to be answered. Both sides can profit from this process if the co-operation is based on mutual trust and respect. Co-operative teacher research allows theory and practice to be connected. Academics can reveal the different shades of theory (typically seen by teachers as "grey") and practitioners can share the "real" colours of their work. By participating, academics can follow the application of their theoretical knowledge in practice, understand their needs and offer evidence for their own research aims.

To update the interest of teachers and school leaders in participating in teacher research it is necessary to better communicate the goals and importance of teacher research and to create a space for its gradual and systematic implementation through the co-operation of school and university institutions. Finally, it is necessary to introduce activities to develop research competencies in both the preparatory and continuing education of teachers. These are essential for teachers if we accept arguments in favour of the effects and importance of teacher research and the place it can play in the quality and prestige of the teaching profession.

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The Construction of Upper Secondary Teachers in Current Swedish Education Policy

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ABSTRACT

The last few decades have been characterised by extensive school reforms and the pace of change has been high in many countries. This is also true for Sweden which could be of international interest as an example of new policy trends. The aim of this article is to describe and discuss how upper secondary teachers' professional roles and projects are constructed in current policy texts. Documents from two reform periods (1988-2004 and 2008) are analysed. Using critical discourse analysis, three themes are focused on: how the motives for the reforms are represented, how knowledge and tasks are defined, and what the implications may be for professional autonomy. The transition from the first to the second reform period implies substantial shifts in Swedish education policy. The long tradition of reforms aiming at the integration of all students is being broken and the strivings for decentralisation have come to a halt. The motives for change during the first period were described as new demands in response to rapid changes in the surrounding world and working life, while in the second period they are about the low quality of current education. There is also a shift in the construction of teachers and views on desirable knowledge. Knowledge is now defined as a competence which narrows the wide definition of knowledge from the first period. Work-related learning is given priority, while other tasks for upper secondary education are being toned down. The previous emphasis on teachers' autonomy is being replaced by stronger state governing and more influence from the receivers of students at the cost of teachers' discretionary power. These changes clashes with the present curriculum and teachers' professional identities.

Key words: upper secondary teachers, reform, professional autonomy, knowledge, teacher education policy

1 Background

During the last two decades the Swedish school system has been radically restructured, and the speed of educational reforms is not slowing down. School reforms and restructurings are sweeping the globe, and an international "travelling policy" (Ozga & Jones 2006, 2) is influencing national educational policy. Sweden is part of this international policy diffusion, but the changes there have national characteristics as well. The core of the so-called system-shift of the 1990s was about decentralisation, management by objectives and results and marketisation. These changes paved the way for the breakthrough of the professional teachers concept in Sweden. At the same time, upper secondary education was thoroughly reorganised and a new national curriculum and grading system created. This development is continuing with a new reform of the upper secondary school in 2011. The new Reform Commission report proposes a new "total reform" of the upper secondary school.

The reform of upper secondary school coincides with several other important changes: a reform of teacher education, a government commission about teacher accreditation, a new Education Act and the implementation of a new grading system. At the same time, the expansion of market solutions continues.

Beside the high level of state activity regarding education policy, European and international organisations like the OECD and the European Union and international achievement comparisons like PISA and TIMSS have been influential (Grek, Lawn, Lingard, Ozga, Rinne, Segerholm & Simola 2009). For example, the report Teachers Matter (OECD 2005) focuses on teacher education and training policy, the Memorandum for Lifelong Learning (European Commission 2000) emphasises participation in the knowledge society and the economy, the development of teaching and lifelong learning. Another report relevant to the present study is Key Competencies for Lifelong Learning (European Commission 2004).

In these times of educational change it is important for teacher educators and researchers to examine and try to understand which new meanings the reforms imply for the teaching profession. Policy documents are vital for understanding what is more or less desirable in teacher

education and teachers' work, and pose questions inviting critical reflection. Policy helps facilitate certain constructions of professionalism and knowledge, while others are rejected.

> As a part of, as well as a consequence of, restructuring efforts, the teacher is "reconstructed" – and the meaning of being a teacher, as well as what a teacher is expected to do, is changed (Carlgren & Klette 2008, p. 118).

The aim of this article is to describe and discuss how upper secondary teachers' professional roles and projects are constructed in current policy texts. Based on this, certain issues are focused on: the motives for change (what's the problem?), professional autonomy and knowledge and tasks.

As the main focus of this study is on policy changes in Sweden during the last few years, i.e. after 2006, related current research is scarce. However, the international research literature from the end of the 1980s till the beginning of the 2000s is quite substantial and focuses on different national contexts or themes. For example, Swedish educational policy has been analysed by Lundahl (2000, 2006), Daun (2003) and Lindensjö & Lundgren (2000). Some crucial themes in this literature are equity (e.g. Englund 2005; Lindblad & Popkewitz 2000; Simola, Johannesson & Lindblad 2002), school choice policy (e.g. Bunar 2010; Grace 1997: 313; Plank & Sykes, eds. 2003), and new-liberal ideology and the marketisation of schools (e.g. Ball 2003, 2007; Olssen, Codd & O'Neill 2004; Ozga & Jones 2006; Walsh 2006; Whitty 1997). Other studies focus on the relationship between reform and teachers (e.g. Ball 1994; Carlgren & Klette 2008; Hargreaves 1994; Hargreaves & Evans, eds.1997; Helsby 1994; Klette 2002; Poppleton & Williamson, eds. 2004).

2 A discourse analysis of policy documents

The point of departure of the study is a profession perspective: the construction of the teaching profession is in the centre of attention and the main issues of profession theory are used, namely autonomy and knowledge.

The analytical approach is critical discourse analysis (Fairclough 1995). In line with Fairclough, the goal of such an analysis is "denaturalizing"

(1995, p. 36). This implies a concern for the effects of discourse. Ideology and values underpinning discourses are focused on to investigate what is implicit and what becomes naturalised in practice, that is, taken for granted or common sense. Further, Bacchi's "What's the Problem?" approach is helpful to understand "how the construction or representation of those [policy] issues limits what is talked about as possible or desirable, or as impossible or undesirable" (1999, p. 3). It also helps us see competing constructions of issues and what is left out or left unproblematised. One starting point is to analyse which issues make up the agenda and how the issues are labelled.

It should be added that even if discourses position and constitute individuals within social and institutional frameworks, I will attempt to avoid "discourse determinism" (Watson 2006, p. 511). The relationship between discourse and people is interactive (Fairclough 1995, p. 39) and there is always scope for action.

In the rhetoric of reforms, the motives for change are described as problems the reforms are supposed to solve. I use the concept problem representation, defined as "ways in which 'problems' get represented in policy proposals" (Bacchi 1999, p. 1). These problem images represent political trends that shape teachers' work context.

> The task then is to open up the problem representations contained in policy proposals to critical analysis, teasing out the presuppositions which lodge there and speculating upon the implications of particular discursive constructions of the problem. Most importantly, there is a need to consider what goes unproblematized in particular discursive constructions (Bacchi 1999, p. 207).

The goals of education policy are often linked to assumptions about what education is expected to achieve, which in turn is linked to teachers' professional tasks. To grasp these explicit or implicit goals I use four discourses of learning, as described by Gewirtz (2008, p. 416):

1. personal fulfilment;
2. citizenship;
3. social inclusion or social justice; and
4. work-related learning (dominated by a neo-liberal view of the learning – work relationship).

The analysis in this paper is based on an examination of recent Swedish state policy documents (Table 1).The documents in the study include some important documents from the reforms of upper secondary education between 1988 and 1994 (which I here call Reform 1) and the new Reform Commission report from 2008. In Reform 1 I include documents concerning a change in the governing of schools. They represent important changes even if they were not specifically about upper secondary school. In order to gain another angle on the current reform, the Commission report on the accreditation of teachers (SOU 2008:52) is also examined (I will call the 2008 documents Reform 2). Documents from two reforms of teacher education are also mentioned. I only touch upon them briefly in the analysis, although they illustrate that the construction of teachers is occurring on a wide front. One change not analysed in this paper is the Reform Acts that created favourable conditions for independent schools (Prop. 1991/92:95 and 1992/93:230). They constitute a starting point for the development of a liberal, competitive school market. This is also part of the construction of teachers but I will not focus on that issue at this time.

Table 1. *The analysed documents*

Reform period 1	***Reform period 2***
New governing (Prop. 1988/89:4; prop. 1990/91:18)	New upper secondary school (SOU 2008:27)
Decentralisation (Prop. 1989/90:41)	Teacher accreditation (SOU 2008:52)
New upper secondary school (Prop. 1990/91:85)	New teacher education (SOU 2008:109 and 112)
New curriculum (SOU 1992:94; Swedish National Agency for Education (1994)	
New teacher education (SOU 1999:63)	

3 The construction of new upper secondary teachers

Documents from the two reform periods are analysed in the following chapter. Bacchi's "What's the Problem?" approach is used to shed light on how problem representations are made in the texts which may help us understanding the motives for change and hence the reasons underpinning the new construction of teachers and education. The next

two sections focus on knowledge, both professional and the knowledge contents of education, and professional autonomy, which are important aspects of education policy and profession theory. The analysis is illustrated with quotations from the policy texts. Most of these are translated by the author, but some are from translated summaries in the original texts.

What's the problem?

The rhetoric underpinning the reforms of the early 1990s was largely about meeting new demands from rapid changes in the surrounding world and the need to prepare for the uncertainties and competition of globalisation. Flexibility became a key word. The changes mentioned were the global economy, new information technology, international mass culture, multicultural society and environmental threats. Further, Sweden had changed radically since World War II. A changing world and working life demand changing knowledge, along with flexible organisations and individuals. This development was taking place in the context of the knowledge society:

> Knowledge and education is one of the most important means for a society to create welfare and prosperity (…) The knowledge growth is one of the most important forces for social reform in our time (…) The knowledge explosion, changes in working life, internationalisation and the global responsibility for our common future will raise new and growing demands for education in our society (prop. 1990/91:85, p. 42).

In line with rhetoric in many other countries, the importance of education for the sake of economic competitiveness was emphasised:

> Investments in education are crucial in the government's policy to strengthen the long-term competitiveness and economic growth (prop. 1990/91:85, p. 108).

The new labour market was described as internationalised, occupations (especially low-qualified ones) disappeared and new occupational groups emerged. These changes demanded a flexible upper secondary school. Other arguments for change were that centralised governing was no longer possible and that the changing times had created changed teenagers that demanded something new from school.

Shortly after the non-socialist coalition won the Swedish election in 2006, the new Minister of Education, Jan Björklund, announced a "total reform" of upper secondary school. This implied that the upper secondary school reform introduced by the former social-democratic government (prop. 2003/04:140) was being shelved. In a newspaper article Björklund described the new government's problem representations. The reasons for the reform painted a picture of dysfunctional education: "no other type of education struggles with so many acute problems as upper secondary school" (Björklund 2006). The problem the Minister mentioned was, more precisely, the high number of failing students and drop-outs, too many students in the individual programme, the low quality of vocational programmes and the possibilities to choose courses tactically. He concluded there was a need for "a far-reaching reform of the Swedish school system to make Sweden as successful during the 21st century as it was during the 20th century" (ibid).

The motives for change summarised above correspond to the argumentation in the Reform Commission report (2008:27). The main argument is that student outcomes are not good enough and a disproportionate number of students have incomplete final certificates. A new, more standardised upper secondary school (including the introduction of a diploma) is an answer to that problem:

> Higher education preparatory programmes shall provide better preparation for higher-level studies than is currently the case (p. 71).

There is a belief in the report that upper secondary school has become too diversified because of the vast amount of programmes and profiling. This variation makes it difficult for students to gain an overview, and the receivers of students (universities, companies and organisations etc.) are unable to grasp what their qualifications actually mean. The solution is stricter programme structures with reduced student choice. The intention to strengthen state control is crucial in the new committee proposal.

Another suggested remedy for the assumed low quality of the current upper secondary school is a clearer division between vocational and study-oriented programmes. I would call this a historic shift as it constitutes a break in efforts to integrate all students in one school,

which was important in Swedish education policy during the 20th century (especially after World War II). The core of the Upper Secondary Educational Reform Commission's analysis is that the present upper secondary school has many shortages and that the new reform will solve them through large-scale changes. This is summarised in three main issues, which will be discussed further on.

The committee report on the accreditation of teachers, (SOU 2008:52) formulates several motives for introducing an accreditation system. The strongest argument is that it will enhance the quality of education. Quality is defined as goal fulfilment. The underlying assumption is that student outcomes have deteriorated. Another important argument is that the demands on teachers have increased due to changes in governing (decentralisation and management by objectives and results) and societal changes. The teachers' tasks have become broader and more complex, which creates a need to strengthen their competence. Expressions of the perception that teachers face increased demands has during several years grown to something like jargon about an extended teaching role in policy documents, which is also an international trend (OECD 2005).

> The systematic quality development work in a school managed by objectives and results implies that the teachers' responsibility for evaluation, follow-up and school-development has increased (SOU 2008:52, p. 293).

Originally the extended professionalism concept referred to teachers researching their own work and the development of learning communities (Stenhouse, 1975), which is assumed to enhance teachers' knowledge-building and school development. It is noteworthy that it now largely has another meaning, connected with governing.

Some other motives for accreditation are mentioned in the report, but they seem to be less important than those mentioned above. One is to motivate teachers to continue their professional development and school development. Another is to make Swedish teacher education more compatible with other European teacher education. Further, the report speaks of the development of new career paths for teachers via increased academisation. The last, but hardly the least, reason for teacher accreditation is the fact that the number of qualified teachers has decreased in the last few years.

The reform of teacher education is a parallel story to the reform of the upper secondary school as regards the motives for change: In the first reform report (SOU 1999:63) the problem representation was to a high degree about the changes that the fast changing society and lifelong learning demanded, while the problem representation in the second reform proposal (SOU 2008:109) is primarily formulated as discontent with the present educational quality. Further, the striving for more flexible education in the first reforms and the shift towards stricter programme structures and reduced student choice involve a parallel trend.

It is notable that the state commission on teacher education for vocational teachers (SOU 2008:112) differs from the other documents. The common strong emphasis on higher demands on the teaching profession is lacking. Vocational teachers are also not described as professional or as experts. The problem that is intended to be solved is the difficulties of recruiting new qualified teachers and replacing those who retire. The amount of certificated vocational teachers in the 2007/2008 school year was 63.9% (Skolverket 2008) and, in addition, a large share of teachers is close to retirement. The solution to this acute problem is to, by way of a relatively short education, validate that the competence of new vocational teachers is good enough.

Table 2 is a brief summary of the examination of problem representations in the policy documents. Even if the Commission report on accreditation belongs to the Reform 2 period, I have placed it in a separate column to give a richer picture.

Table 2. *What's the problem? The problem representations.*

Reform 1	**Reform 2**	**Accreditation**
Changes in the surrounding world: globalisation, labour market, national conditions. Lack of flexibility and equality.	Low quality of the present education, especially the individual and vocational programmes. Study failures and drop-outs. Too much flexibility. Integration of programmes. Decentralisation.	Low quality of the present education. Increased demands create needs for higher competence. Too many unqualified teachers. Low status of the teaching profession.

As mentioned, the new Upper Secondary Educational Reform Commission's report claims there is a need for large-scale changes in three areas:

- The student's right to a good education needs to be strengthened.
- Responsibility, structure and regulations need to be clarified.
- Greater cooperation in upper secondary education is needed between receivers and school governing bodies (SOU 2008:27, p. 58).

I would call the first issue a platitude: Who would deny students a right to a good education? The formulation presupposes that the education is bad. This is not convincingly proven. To search for deeper understandings of what a successful education is, the perspectives need to be widened and embrace the surrounding world, the local, national and global contexts. There is a need to avoid the notion of educational work as taking place in decontextualised arenas.

The proposed solutions involve a new programme structure, a clearer division between vocational and study-oriented programmes and closer collaboration with working life. The individual programme, where there are too many students who lack study motivation and complete grades, will be replaced by apprenticeship education and a tenth (preparatory) year in compulsory education. These measures are not problematised. There is no substantial reflection regarding risks of increased social segregation, nor regarding the quality of apprenticeship education. I perceive the idea of holding students with incomplete grades in an extra year in compulsory school as naïve. Students who have failed compulsory school often lack motivation and do not feel they are in a context in which they can flourish. The prospects of solving that situation by way of leaving them behind, in the same milieu as they have experienced failure, are not good. This proposal has met criticism and may be excluded when it comes to a government bill.

The second issue of clearer responsibility and structure implies stronger state governing and more power to the receivers of students. It is notable that the intentions were the same regarding the reforms at the beginning of the 1990s: education at the time was regarded as too disintegrated and hard to grasp. However, at that time more power was given to the teaching profession. This situation poses questions that lack convincing answers in the new report: What makes the structure of the

new education clearer? How can we be convinced that representatives from trade, industry and higher education are better suited to create upper secondary education than teachers? What learning discourses will these representatives (for example, managers of car repair shops or hospitals and professors of chemistry or French) emphasise: personal fulfilment, citizenship, social inclusion and social justice that may be toned down or disappear or work-related learning? Will they support a school for all, even students at risk and students who are not "high-performers"? Will they work towards democratic values, critical thinking and individuals' rich personal growth? There is a risk that competence in a narrow, instrumental sense and measurable outcomes aimed at employability will be the definition of knowledge and quality. This risk is even higher in the context of a school market in which competition is increasing.

The third issue, to improve the cooperation between schools and working life, was also prioritised in the previous reform. In what ways will co-operation be facilitated by the new reform? An analysis regarding the conditions and priorities of, for example, industry and trade is lacking. At present, it is difficult for some vocational programmes to arrange practice for their students due to the high pressure of profitability and competition in working life. The new reform proposal does not give any solution to such realities.

I have called the new intention to divide instead of integrate vocational and study-oriented programmes a historic shift. Even if I agree that there is good reason to question how compulsory study-oriented courses for all work in practice, I cannot see the reason to lower the demands and restrict the life chances of about half the students. It contradicts a basic conviction in education: the belief in humans' extensive capacity to develop themselves. Further, the obstruction of eligibility for higher education for students in vocational programmes that the new committee proposal implies risks greater social segregation. There is substantial support in previous research for the belief that social, cultural and economic capital play an important role in teenagers' choices (e.g. Hodkinson and Sparkes 1997).

Knowledge and tasks

A comparison between the reforms of upper secondary education from the beginning of the 1990s and the new Reform Commission report shows a shift in the construction of teachers and as a consequence what kind of knowledge is desirable. In short, it is a shift from a strong emphasis on teachers' professional judgement to an emphasis on demands from the receivers of students, that is, working life and higher education. The new definition of the task of upper secondary education is to satisfy the receivers' skills supply needs. This implies a narrow definition of competence, which is the dominating concept of knowledge in the report.

The emphasis in the new Reform Commission report on the power of the receivers implies that one task of upper secondary education is given priority, namely work-related learning, while others are toned down. To produce a skilled workforce is the main task of education.

> It is important for working life, both private and public employers, to have access to a well educated workforce and it is also important for growth issues, for industrial policy in a municipality or region and for the country as a whole (SOU: 2008:27, p. 59).
>
> I have designed a system that meets currently assessable needs based on what can be deduced
>
> from the continuously on-going changes in working life (…)The vocational education programmes I propose shall enhance employability and the upper secondary level will in
>
> future be defined by the established diploma objectives for each programme in cooperation with receivers (SOU: 2008:27, p. 65).

Other tasks, like preparation for participation in a democratic society and a contribution to rich personal growth are hardly visible in the report. This is noteworthy as those tasks are still present in the national curriculum – which is, by the way, the one published in 1994. Further, the Bildung concept which was important in the previous reform is absent in the new report. In the report from 1992 Bildung was defined as a person's cultivation and creation of him or herself into something new which makes freedom possible (Committee Proposal 1992, p. 49). It is about people's free and active search for knowledge and an

understanding of the self within the world – a definition that opposes a view of Bildung defined as a cultural canon for an élite in the West (Gustavsson 2007).

The concept was part of a discussion about the contents and tasks of education:

> Education should not merely be a planning instrument. Should it be satisfied with effectuating the demands of the contemporary economy or time spirit, it would accomplish its assignments badly (SOU 1992:94, p. 57).

A critical interpretation of the new committee proposal would say that the opposite intention is predominant: to execute the demands of the now prevailing state of the market and spirit of the time. It is mentioned that the task of education is to prepare students for active participation in society, but the overriding message is that the task of upper secondary education is to "satisfy the skills supply needs of working life and the higher education sector" (SOU: 2008:27, p. 59).

The receivers' strong position in the new report has consequences for the view of knowledge. The word competence is used 203 times in the text and apparently it implies a narrow definition of the concept: knowledge in a technical or instrumental sense. This interpretation of the meaning is even clearer in the English summary as competence is translated into the word "skills". This narrow definition also clashes with the present curriculum in which several interacting knowledge forms are described as desirable:

> Knowledge is a complex concept which can be expressed in a variety of forms – as facts, understanding, skills and accumulated experience – all of which presuppose and interact with each other. Education shall not emphasise one aspect of knowledge at the cost of another (Swedish National Agency for Education 2006, p. 6).

In comparison, expressions of knowledge in the new report are worded like, e.g.:

> What skills do students need to cope with their next step in life? This also explains my cooperation with receivers, those who "receive" upper secondary school students, when it comes to

> assessing what requirements are stipulated now and in the future (SOU 2008:27, p. 61).
>
> …the diploma project on a vocational programme verifies whether the student is sufficiently competent to be employed in the relevant occupational segment and on a higher education preparatory programme whether the student is sufficiently competent to study at university/college (SOU 2008:27, p. 75).
>
> A vocational programme leads to a vocational diploma that provides a recognised qualification that in turn enhances employability. The vocational educational programs I propose shall enhance employability and the upper secondary level will in future be defined by the established diploma objectives for each programme in cooperation with receivers (SOU 2008:27, p. 65).

Competence is also the word used for teachers' knowledge in the Commission report on the accreditation of teachers but the definition differs from the new Reform Commission report. The descriptions of accreditation systems in other countries and varying efforts to summarise the teachers' knowledge base constitute quite a rich, but vague, definition of competence. A profession perspective is more prominent in this report.

The core of the views of knowledge and tasks as described in the policy documents are summed up in Table 3.

Table 3. *Professional knowledge and tasks*

Reform 1	Reform 2	Accreditation
Professional knowledge (defined by the profession), framed by goals and assessments. Several interacting knowledge forms, including Bildung.	Competence, as defined by the receivers. Instrumental. Personal fulfilment toned down.	Competence, defined as professional knowledge base – a prerequisite for quality = goal-fulfilment.

It is confusing but interesting that the notion of international economic competitiveness within the globalised economy underpins both reform periods. Paradoxically, it is a perspective that is more explicitly expressed during the first period – in spite of its wider agenda regarding

the tasks of education. The notion is more implicit in the second reform period, but the narrow and instrumental conceptions of education as means of enhancing individual employability and the creation of a modern workforce in line with employer demands is apparent.

The priority of desired learning discourses is a core issue which will be crucial for both student learning and teachers' professional identities. In the new reform proposal, the learning discourses of personal fulfilment, citizenship, social inclusion and social justice are downgraded, while work-related learning is what counts. This should be alarming to politicians as well, at least for those who consider education an important prerequisite for a democratic society.

Liedman (2008) has analysed the international competence discourse and claims that it is constantly present in discussions on today's education. Further, competence is often connected to quality. His explanation of that link is that there is a striving for quantification, an intention to quantify performance. The competence concept makes it possible to compare different individuals' ability to perform certain tasks. There is a belief that measurable performances will make the workforce more efficient, but Liedman is critical of superficial quantification. He argues that human qualities are not suitable for quantification.

Knowledge is also part of the lifelong learning discourse. Liedman discusses the various meanings of lifelong learning. On one hand, it is perceived as opportunities and life chances for an individual while, on the other, it is regarded as the individual's constant adaption to the shifts of the labour market. Liedman claims that the curriculum implies a meaning of the concept which excludes an interpretation as simple adaption to the labour market. In contrast, the emphasis on competence and receivers' influence in the new report carries a meaning of lifelong learning which is close that of adaption to the shifts of the labour market.

In the Commission report on the accreditation of teachers the concepts lifelong learning and learning society are less present than in the other documents. Lifelong learning is mentioned a few times, mainly in the context of European education policy. Different learning discourses are hardly visible in the text. However, the report elaborates the notion of a

knowledge base. This represents both understanding and respect of professional knowledge. It is true that professionalism is defined as a competence (SOU 2008:52, p. 74), which may represent a narrow view, but the reasoning and international examples of richer and dynamic definitions of a knowledge base indicate a more substantial understanding.

A broader understanding of knowledge, as practical and tacit, is present in the proposal to introduce an introductory year for new teachers as well. The aim of the introduction is twofold: professional support on one hand, and control and assessment on the other. I regard this supervision in a community of practice as a step forward as it is a way to avoid the "sink-or-swim approach" that many new teachers have experienced – with heavy costs both for the individual and for the school as an organisation. It is also an acknowledgement of the teaching profession as a complex and difficult profession.

Professional autonomy

The professional teachers concept was introduced in state policy documents about changes in governing and the devolution of responsibility to the municipalities during the first reform period. This implied a wide space for professional judgement and teacher autonomy (freedom of action). Professional teachers seemed to fit like a glove in a decentralised school system managed by objectives and results. The state financial crisis of the time may have made the fit even better as teachers were responsible, despite the budget cuts. The strong position of the teaching profession was expressed in several documents:

> The responsibility to choose teaching contents and methods to achieve the national curriculum goals rests with the teachers (SOU 1992: 94, p. 296. Author's translation).
>
> The teachers' opportunities to influence teaching contents and methods shall be extensive. Thus, teachers' competence will be taken care of and their professional role strengthened and developed (prop 1989/90:41 p. 5. Author's translation).
>
> I (Minister of Education Göran Persson, my comment) regard a higher degree of local responsibility-taking as necessary as it is my conviction that the force behind school development now must be sought in classrooms and the single school. It is the

> experience and professionalism of school leaders and teachers that has to be utilised (prop. 1990/91:18, p. 23. Author's translation).

The new Reform Commission report is characterised by another tune. The teachers are still named professional but this time they are allotted a much more modest role. They are replaced by a new key actor: the receivers of students. The receivers are defined as working life and higher education and are given the role of deciding what to demand from education and the quality of the results. This shift implies a change of views on knowledge and, further, a new priority of the tasks of upper secondary education. In fact, the very definition of the aim of the education is described as being for the sake of the receivers:

> As regards vocational programmes, the aim is to educate students for an occupational segment. The aim of higher education preparatory programmes is to prepare students for higher education studies (SOU 2008:27, p. 74).
>
> An important aim with the new structure is the different receiver requirements (SOU 2008:27, pp. 61, 62).

The influence of working life and higher education regarding contents and quality demands is clearly and repeatedly expressed in the text:

> I therefore propose that the task of upper secondary schools to satisfy the skills supply needs of working life and the higher education sector be further clarified in the Swedish Education Act. I also propose a clear role for receivers, i.e. working life and the higher education sector, when it comes to formulating educational objectives (SOU 2008:27, p. 59).
>
> Vocational diplomas (…) shall be designed in close consultation with the relevant industries. A vocational diploma guarantees that the student is well prepared for the occupational sector at which the programme is aimed. The same is true of a higher education preparatory diploma; it shall be designed in close consultation with representatives of institutes of higher education (SOU 2008:27, pp. 73, 74).
>
> When the National Agency for Education prepares the issues *(*regarding *content, my comment),* the stakeholders of each programmes shall have a strong influence over the content via

> the proposed national programme councils (SOU 2008:27, pp. 61, 62).

In contrast to the receivers, the teachers are not strongly featured in the new report. They are mentioned as professionals, but their role seems restricted:

> In a school, governed by goals, they [the teachers] receive and perform the task by means of their professional competence (SOU 2008:27, p. 330).
>
> I also see them as an important resource in the efforts to attain national equity and to include teachers as a professional group in the national quality assurance system (SOU 2008:27, p. 65).
>
> Continuing professional education is a prerequisite of successful implementation (SOU 2008:27, p. 617).

It is notable that even the decentralised governing is mentioned as a problem. The new committee proposal is permeated with the intention to strengthen state control:

> The current situation implies very strong producer control instead of upper secondary schools performing a task formulated by the governmental political level as described when
>
> the reform was presented at the beginning of the 1990s. This also means that the conditions for formulating and implementing a national education policy have been weakened. Whether upper
>
> secondary education is nationally equitable is strongly debatable (SOU 2008:27, p. 56).

The Commission report on the accreditation of teachers is characterised by ambivalence with regard to teachers' autonomy: on one hand, teachers' professionalism and knowledge are elaborated, on the other, the necessity to strengthen state control is emphasised. The latter is expressed in the context of the quality discourse: "there is a need for some kind of quality assurance of teachers" (SOU 2008:52, p. 80). The core idea of the reform is to enhance the quality of education by regulating teachers' competence. Professionalism is defined as competence. Competence results in quality and, as quality is defined as goal fulfilment, the reasoning is basically about governing. This line of

thought ends up in a perception of professionalism in which the profession is a managed profession – which contradicts the considerable professional autonomy assumed by traditional profession theory and in the first reform period.

Table 4 is an attempt to briefly characterise the implications of the reform policies on professional autonomy for teachers.

Table 4. *Professional autonomy*

Reform 1	Reform 2	Accreditation
Professional teachers in a decentralised organisation, managed by goals and results. Extensive autonomy. The students are the clients.	Stronger state governing, and the receivers are the core actors and clients.	Two-sided: stronger state governing and enhanced professional status. The students, the state and the receivers are clients.

The marked prominence of the receivers of students (defined as working life and higher education) is something new and notable. It is not just about close dialogue. It seems to be about employability, but even about power: the right to define the tasks and what counts as a quality upper secondary school is transferred to working life and higher education. This reduces the teaching profession to obedient servants for educational decisions made by the state, trade and industry. From a profession perspective, this development can be described in another way. The change constitutes a crucial shift: students have traditionally been the clients of the teaching profession, now the receivers are the clients. This shift will probably have an impact on teachers' professional identity as well as the priority of what kind of learning is desired. A teaching profession with a profound moral understanding of the work, able to apply wise professional judgement, has the potential to function as a guarantee against a narrowing of educational goals in our time. Autonomy (however not unrestricted) is a prerequisite for that.

The new ambition to strengthen state control is apparently a change of the view of decentralisation which has been a direction since the 1970s. The new standpoint is motivated by care for nationally equitable education. It could also be interpreted as a lack of trust in the teaching profession. The accreditation report represents an alternative view. It is characterised by ambiguity with regard to the balance between

management and profession perspectives. This differs from the state- and receiver-dominated perspective of the new upper secondary school report, and is in line with the literature on organisational change. Unless those involved in the actual implementation of change are able to create meanings out of the reforms, or if change contradicts their professional identities, the reforms are bound to fail (Fullan 1997). Thus, I regard a balance between management (e.g. state governing) and the profession as the most fruitful way forward – even if that implies ambiguity and a need to balance differing interests.

4 Concluding reflections

The transition from the first reform period (1988-1994) to the second period (2008) implies substantial shifts in Swedish education policy. The long tradition of reforms aiming at the late differentiation and integration of all students is being broken. The same goes for the integration of different teacher groups and course contents. The strivings for decentralisation and an enhanced teaching profession during recent decades is another direction that seems to have been changed with reform period 2.

This development poses several questions to the teaching profession, teacher educators and educational researchers. The results of this study imply a policy shift in the construction of teachers and views on desirable knowledge. Educational tasks other than work-related ones are toned down. The overall picture of reform period 2, with the accreditation report as an exception, is that education is perceived in quite a narrow and instrumental way, and as a means to promote individual employability and a skilled workforce. This means that other important learning goals, like personal fulfilment, citizenship and social inclusion and justice (Gewirtz 2008) are disregarded, which implies a clash with the current curriculum and with professional values as well. These educational tasks are clearly expressed in the curriculum and are also important parts of teachers' professional identities. It is probable that this clash will provide teachers with a number of tensions in their work practice.

The previous emphasis on teachers' autonomy is being replaced by stronger state governing and a stronger influence on education from

trade, industry and higher education. What are the consequences of degrading the teaching profession in times when the situation of practice is characterised by "complexity, uncertainty, instability, uniqueness, and value conflicts" (Schön 2000, 14)? Who is going to exercise wise judgements in such a context? Who will defend democratic and human values in education when competition and the logic of the market (Freidson 2001) are taking over many of the priorities in both public and independent schools?

The motives for change during the first period were described as new demands in response to rapid changes in the surrounding world and working life, while in the second period they are about the low quality of current education. As discourses affect practice, the current situation calls attention to the importance of giving teachers and teacher students opportunities and support to understand and create meaning of these trends, even critical views of what is taken for granted and how the construction of policy issues limits what is possible or desirable, or impossible or undesirable.

The transition from reform period 1 to period 2 is a reconstruction of the image and soul of the teaching profession. Teachers' position since about 1990 can be described as being part of a professionally oriented public service bureaucracy, while in the new reforms they are moved to a position nearer traditional wage earners who are expected to execute what has been decided by other actors, mainly the state and the receivers of students. This reduction of power and autonomy of the profession may affect teacher education recruitment. The meagre conception of knowledge and the market-oriented influence on teachers' work and terms of employment are other factors that are strengthening this trend. How will teacher education respond to such a challenge? In a broad perspective, the construction of teachers and knowledge in the new reform proposal poses questions concerning human development, power relations and what kind of society we would like to have in the future.

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Preparing Subject Matter Teachers for Work

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ABSTRACT

What do teachers need to learn at the university? Finland has answered this question by developing a teacher education with a rather simple structure. Class teachers with masters in education teach the six first grades. Subject matter teachers with masters in their teaching subject teach the older students. Perhaps due to the position within the faculties of education more research has been done on class teachers' conceptions about their studies. This research aims at analyzing subject matter teachers' conceptions about the work preparing capacity of their educational studies, replicating an earlier study from 1997. The results show that the conceptions about teacher education are rather stable. Central teaching abilities like lesson planning and evaluation of the own work are given good marks, while cooperation with parents and administrative duties are considered problematic. The results however challenge the authenticity of the studies as well as the amount of the three elements in the "chord" building up teacher education: pedagogy, subject matter and practice.

Key words: Teacher education, subject matter teachers, work preparing capacity, central teaching abilities

1 Background of the study

What do teachers need to learn during their studies? Finland has answered this question by developing teacher education with a simple structure. The teaching profession is considered a demanding expert task for which university master's studies are needed. All teachers take their exams at universities: primary school teachers, the so-called class teachers, with a master's degree in educational science, teach the first six grades, while subject matter teachers, with a master's degree in one of their teaching subjects, teach grades 7 – 9 in secondary school and years 1 – 3 in upper secondary school. In analyses of the Finnish success in the PISA tests credit has been given to the country's teacher education (Niemi, 2006; Uljens, 2009). Although many variables influence the

results, those who want to believe in a Finnish "PISA miracle" should not rule out the impact of teacher education. The research presented in this paper, replicating a study by Niemi and Tirri (1997), aims to analyse subject matter student teachers' conceptions of the work-preparing capacity of their educational studies.

The empirical data for the study were collected from evaluations of educational studies undertaken by subject matter student teachers at Åbo Akademi University during 2006, 2007 and 2008. The evaluations were executed as the students had finished the educational part of their studies and most of them were ready to start working life. The paper aims to answer the initial question from the perspective of student teachers. Even if conceptions of their own abilities change with growing experience (cf. Yrjönsuuri, 1987), the problems faced by newly qualified teachers motivate an analysis of the conceptions of their studies (Blomberg, 2008; Aspfors, 2009). Further motives can be found in the arguments expressed by teachers leaving teaching for other professions (Blomqvist, Keihäs, Hansén & Wikman, 2008). These teachers question the ability of their educational studies to paint a realistic picture of the teaching profession. Though teacher studies have been popular in Finland, a growing movement into other professions can be noticed (Laaksola, 2007).

It is today still easy to agree with Niemi who in 1984 noticed that very little research had been done in the field of subject matter teacher education. In the next two sections I firstly analyse conceptions of research-based teacher education and secondly evaluate earlier research on teachers' conceptions about the work-preparing capacity of teacher education.

2 What is meant by research-based teacher education?

The structure and content of teacher education could certainly, as Hagger and Mcintyre (2000) emphasise, be based on the character of the actual work teachers are performing. In Finland, as in many OECD countries, teaching is considered to be a research-based profession. As the concept of research-based teacher education has been given various interpretations there is a need to scrutinise the variation between them.

The aim is to analyse what the concept could imply for subject matter teacher education.

According to Askling (2006), teacher education can be research-based in at least three different ways: (1) the university teachers of student teachers can be connected to research by doing research; (2) the student teachers can participate in research; and (3) the teaching can be characterised by the kind of curiousness and problem-solving activities as within qualified research. Skaagen (2006) is sceptical of the possibility of Norwegian teacher education being research-based if this teaching is based on the research of the teachers. The width of educational research today implies that teacher educators cannot base their teaching completely on their own research.

Rasmussen (2006, cf. Uljens, 1997) underlines that the teaching of students cannot be seen as doing science. The scientific anchoring should rather contribute to a clarifying of thinking and helping the teacher reflect on his or her own teaching. A teacher who is informed about research in the field of education can develop a critical attitude to the new educational fashions confronting professional teachers from time to time.

Niemi (2006) stresses that the work of a teacher does not lead to the same kind of scientific results as those of a researcher, but teachers have to look at their work in the same way as researchers do. The task for teacher education is to develop a base for the continuing research-like activity of teachers which encompasses the evaluation of different situations in their own teaching and in the school context. Based on this reflection teachers are supposed to develop their teaching.

According to Kynäslahti, Kansanen, Jyrhämä, Krokfors, Maaranen and Toom (2006), teacher education should give students a general competence in research methods as well as the ability to practice one or more research methods in their teaching. The aim of research-based teacher education should make the students (ibid., pp. 248-249):

> (…) able to make educational decisions based on rational argumentation, in addition to everyday or intuitional argumentation. The skill of being able to think along the lines of research principles presupposes a general understanding of all-around research methods.

Kynäslahti et al. believe the ability to reflect on one´s own teaching is developed by general knowledge about research methods.

The concrete examples of research-based elements in teacher training that are emphasised, for instance in the form of realised projects for master's theses (see Westbury, Hansén, Kansanen & Björkqvist, 2005), are usually taken from class teacher training. Even if the variation among the themes class teachers have focused on in their thesis work is substantial, it is even more difficult to see the connection between research topics in subject matter teacher training and teachers' work. One of the teachers in a study by Blomberg (2008), focusing on the first year in the profession, states that the thesis writing did not activate any pedagogical thinking at all. This indicates, for instance, that the theme of a master's thesis seems to be important.

Askling (2006) suspects that the research-based elements in teacher education are not always considered credible by students because of a discrepancy between university teaching and the vocational elements of teacher education. This discrepancy can also be found in an evaluation of teaching in compulsory school carried out by the Finnish Education Evaluation Council (Atjonen et al., 2008), where some teachers question the theoretical knowledge developed in teacher education (my translation, TW):

> *I do not think according to pedagogical terminology.*
>
> *I think that the so-called pedagogical principles are too vague to be used directly.*

The second excerpt gives reason to reflect on the nature of the knowledge and skills expected for carrying out teachers' work. Frequently, teachers' reflection on their own experience is underlined (Kolb, 1984; Uljens, 1997). Yet to some extent the teacher's work seems to be out of reach of conscious reflection. The knowledge is tacit, intuitive and situation-bound, sometimes even the result of chance. Jank and Meyer (1997) consider pedagogical acting to be too complex and dependent on too many factors to be explained by a theory. If this description, or the notion of reflection-in-action for tacit knowledge (Schön, 1984), is accepted, then new demands are posed for subject matter teacher education.

Finnish subject matter education (for grades 7 and above) is characterised by a heavy focus on subject matter studies. The

assumption of Hagger and Mcintyre (2000) that started this section gives reason to consider to what extent a general reflection on research methods enhances the development of teaching abilities.

3 Research on teachers' conceptions of the work-preparing capacity of teacher education

Yrjönsuuri (1990) investigated teachers' conceptions of teacher education. Both class and subject matter teachers participated in the investigation which showed clear differences between the two groups. The class teachers considered social issues and teaching methods as their strong fields, while the subject matter teachers thought that subject matter knowledge was their strength. The ability to plan and to evaluate was considered sufficient. The ability to handle classroom interaction was, on the other hand, considered inadequate.

Niemi (1984) investigated subject matter students' conceptions of their teacher training and how they wanted to develop it. The results indicated that the students were critical of the short duration of their studies. They stressed the importance of subject matter didactics and the teaching practice with experience at the teacher training school. The distance between theoretical pedagogy and a teacher's concrete work was experienced negatively. The students did not want to eliminate the scientific focus of the studies, but wished for the development of specific implementation in classroom contexts.

The results seem to have found resonance within a Nordic perspective. Aðalsteindóttir (2006) refers to an Icelandic study showing that new teachers find many aspects of their work surprising. Shortcomings in the studies were identified in the preparation of student teachers for communication with parents. New teachers also had limited knowledge about evaluation and assessment.

Niemi and Tirri (1997) carried out a follow-up study of Niemi's (1984) investigation referred to earlier in this paper. Based on characteristics of post-modern society the investigation was broadened to include the demands put on teachers due to changes in society. According to Niemi and Tirri (ibid.), the teachers gave their education favourable marks for developing the abilities that are central to classroom action.

In the study of Niemi and Tirri (ibid.) the subject matter teachers considered themselves well or very well prepared for planning teaching (m = 3.95, scale 1 - 5), for evaluating their own teaching (m = 3.78) and for independently handling a teacher's tasks (m = 3.50). Niemi and Tirri (ibid.) considered this evaluation encouraging. However, the subject matter teachers thought that their studies had not prepared them well enough for handling administrative duties (m = 1.82), dealing with issues of student welfare (m = 2.06), co-operating with parents (m = 2.24) and acting within the school community (m = 2.27).

The research findings analysed in this section show that Finnish teachers seem to be well prepared to teach in class, while teacher education seems to pay less attention to those parts of a teacher's work which occur outside the classroom.

4 Aim and method

The aim of the article is to illuminate the strengths and weaknesses of teacher education from the perspective of student teachers.

A descriptive quantitative approach is complemented by an analysis of open-ended questions. The empirical material was collected through a questionnaire consisting of open-ended questions and multiple choice questions. The multiple choice questions were based on the questionnaire used in the study of Niemi and Tirri (1997). Some items were left out due to the different contexts of the evaluations and due to challenges with the translation (from Finnish to Swedish). Niemi and Tirri collected their data when the teachers had been in work life for one year. A full comparison of the results is therefore not possible.

5 Results

The results from the multiple choice questions are summarised in Table 1. The student teachers were asked how well they considered teacher education had prepared them for certain issues in a teacher's work. As the table shows, the results from the evaluations in 2006 – 2008 resemble the results from 1997 (Niemi & Tirri).

Table 1. *Summary of subject matter student teachers' answers (mean) to multiple choice questions (Likert scale from 1 to 5, with 5 being the highest).*

	1997 (N & T)	**2006 – 2008** (mean)
1. to plan teaching	3.95	4.25
2. to critically analyse one's own work	3.78	4.08
3. to independently manage a teacher's varying tasks	3.50	3.88
4. to use different teaching methods	3.49	3.88
5. to manage classroom interaction	2.83	3.74
6. to master subject matter knowledge	3.29	3.68
7. to take a pupil's entire personality into account	3.00	3.60
8. to further equality between sexes	2.71	3.25
9. to evaluate and assess pupils	2.86	3.13
10. to understand and have knowledge about pupil welfare	2.06	3.10
11. to interact with society	1.79	3.05
12. to be confronted with multicultural questions	2.53	2.99
13. to act in situations of crisis	1.94	2.95
14. to be responsible for extra-curricular activities	2.36	2.86
15. to co-operate with parents	1.99	2.66
16. to act within the school society	2.23	2.62
17. to manage administrative tasks	1.87	2.00
n =	94	47 (mean)

Also the student teachers in this study consider themselves well prepared for teaching in class, while the teachers' work outside class is marked lower. In order to triangulate the results, the student teachers were also asked about which additional issues they would have wanted to learn during their teacher education. Table 2 shows that the main wishes are directed towards classroom action and not so much towards the duties of a teacher within society at large.

Table 2. *Summary of an open-ended question about student teachers' wishes concerning their studies*

	2006	2007	2008	Sum	Mean
Evaluation and assessment	17	6	8	31	10.3
Practical hints, theory in action, teaching methods	10	6	7	23	7.7
Special education, integration	3	15	4	22	7.3
Classroom management	11	4	4	19	6.3
Actions against bullying	1	3	6	10	3.3
Administrative duties	2	8	3	13	4.3
Variation in the levels taught (e.g. vocational)	9	2	2	13	4.3
n	46	45	51		

6 Discussion

The results of the study show some consistency in teachers' conceptions about their studies across time and contexts. The strengths and weaknesses seem to be more or less the same. Core issues of a teacher's work (knowledge about planning, teaching methods, classroom interaction) are given high marks by Finnish teachers when measured with an interval of approximately 10 years. Of the issues within the teaching process, evaluation and assessment seem to need more emphasis. The capacity of teacher education to prepare teachers for duties in society outside of school is given lower marks than teaching activities in class. However, when asked which types of content or activities teacher education should focus more on, the teachers thought that even more focus should be put on preparation for classroom work, such as classroom management and teaching methods.

As for subject matter teacher education the results of the study question the concept of research-based teacher education. Although the core activities in the teaching profession are given good marks by the student teachers in the study, there are still wishes concerning more content and activities in the same areas. This opens a discussion on the educational content in the studies. The results could be interpreted as a need to develop the authenticity of the studies. If knowledge of research methods is considered beneficial for developing teaching abilities, the

context in which the research is carried out also has to be given importance.

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Liberal Science Teacher Education Revisited

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ABSTRACT

The paper discusses challenges appearing in value-based work in science teacher education in Sweden and other European countries. An analysis is offered of certain aspects of emotional, intellectual and pedagogical values in the light of the theoretical elaborations and practices of liberal science education developed during the 1950s. Currently, science teacher education faces a situation in which the values and priorities in the science education curriculum are no longer focused on "hard science" but on "light science". Swedish science teacher training for compulsory school focuses more on pedagogy than on subject knowledge, providing students with tools to be reflective in educational sciences rather than in natural sciences. Teacher education takes more of a minimalistic approach in providing prospective teachers with skills to develop students' abstract conceptual thinking (or theoretical thinking, in Vygotstky's terms). The focus is instead on varieties of practical acquisitions and uses of knowledge. This goes against Hegel's (1770-1831) philosophical thinking that the development of conceptual thinking should start from the simplest (meaning abstract) principles towards more complex and concrete applications (including the complexity of real objects). Prospective teachers hardly have any interest in developing methods of advancing students skills of abstract-theoretical thinking in science education (as reflected, for example, by the content of their examination projects). This could partly reflect the absence of teacher educators' interest in these issues. Drawing on the arguments of Joseph Schwab and using the methodological principle of complementarity, this paper argues that modern science teacher education should provide training for prospective teachers to work with emotional as well as intellectual values, and inductive "practical" as well as deductive "theoretical" ways of inquiry.

Key words: conceptual thinking, curriculum values, nature of science, scientific inquiry

1 Introduction

During a recent public defence of a PhD thesis related to laboratory work in secondary school at our university, both the opponent and respondent agreed that Swedish science teachers need to be more explicit in their teaching about the processes of scientific inquiry and the nature of science. These aspects were also at the core of the public debate following the defence, indicating the concern held by Swedish teacher educators about the issue. However, the question of what is the purpose of inculcating scientific inquiry and the nature of science was absent in the abovementioned defence and is often unclear in current research literature (Flick, Lederman, 2004). In this paper I argue that focusing on scientific inquiry and the nature of science is a way to educate independent critical thinkers. This purpose has always been pursued by liberal educators and is stated in the steering documents of both Swedish higher education and teacher education.

According to the Swedish Higher Education Act (SFS 1992:1434), the general objectives of higher education are to develop students':

- ability to make independent and critical assessments;
- ability to independently perceive, formulate and solve problems; and
- preparedness to deal with change in working life.

In addition to knowledge and skills pertaining to a particular field, students should also develop the ability to:

- seek and evaluate knowledge at a scholarly level;
- follow the development of knowledge; and
- exchange knowledge with other people, including people without specialist knowledge of the field.

In this paper, I first discuss the historical and theoretical roots of the principles of teaching inquiry from the perspective of liberal education and then outline the challenges related to emotional, intellectual and pedagogical values in science teacher education.

In general, inquiry refers to the work scientists do when studying the natural world, i.e. posing questions, gathering evidence and making explanations of natural phenomena. According to Tanner& Tanner (1990, 280), "scientific inquiry is the method of gaining knowledge and transforming it into working power." Inquiry-based instructional

strategies lead to learners developing autonomous problem-solving capacities in turn leading to "freedom from depending of the teacher" (Tanner, Tanner, 1990, 275). While the notion of inquiry was introduced into education by John Dewey, it was Joseph Schwab who first operationalised the approach for science education.

The complementarity approach first suggested by Nils Bohr in 1927 is used in this paper as a methodological principle for discussing value-based choices in science education. According to Bohr, one has to accept that a micro-world object can reveal different properties in different circumstances that can be explained by relatively incompatible theories.[1] Bohr also suggested the possibility of using this principle in fields of science other than physics (Ben-Dov, 1995).

I depart from the assumption that the modern science teacher education should provide training for prospective teachers regarding critical thinking, teaching them about and through scientific inquiry and leading students to understand the nature of science in the spirit of liberal education. Using the complementarity principle, this paper argues for the importance of imparting intellectual and emotional values to students, and teaching them not only the inductive "practical" way of collecting evidence in science classes but also the deductive "theoretical" way of scientific inquiry, an approach that is often overlooked in the curriculum implemented in teacher education. Such an attempt reflects the theoretical elaborations of liberal science education made by Joseph Schwab, to whom I will extensively refer in this paper. I also draw on educational work performed 60 years ago at the College of Chicago University. The papers Schwab originally wrote during the 1950s and the efforts at Chicago University in the 1940s show that the ideas of liberal science education developed and probed over half a century ago continue to be as powerful today as they were then.

[1] For example, an electron can behave in some experimental situations as a particle and in others as a wave. Hence, wave theory (describing the diffraction of electrons) is valid in one case and kinematic descriptions (of electron trajectories) in the other. These theoretical descriptions (which are quite contradictory) complement our understanding of the micro-world.

2 On liberal science education

Webster's Dictionary defines liberal education as education that enlarges and disciplines the mind, making it the master of its own powers, irrespective of the particular business or profession one may follow (http://www.webster-dictionary.net). The Association of American Colleges and Universities (AAC&U) actively promotes liberal education and defines this approach as learning that empowers individuals and prepares them to deal with complexity, diversity and change (http://www.aacu.org/leap/What_is_liberal_education.cfm). Schwab (1978) suggests that liberal education should provide:

> the best statement of our present knowledge of the human make, of the various means – some special in their application to specific subject matters, some general – by which the understanding frees us from submission to impressions, beliefs, and impulses, to give us critical and organizing power and deliberative command over choice and action. A liberal curriculum is one concerned that its students develop such powers (p. 125).

Traditionally, science studies constitute part of a liberal education. Etymologically, the word "science" means the search for knowledge that reflects the spirit of liberal education. Schwab saw science as a certain kind of *habit of inquiry* aimed at understanding the natural world. Science education aims at an *understanding of science*, its subjects and processes. Being a curricular specialist, Schwab attempted to clarify the essential characteristics of science education. According to Schwab, the comprehension and evaluation of scientific investigations should be at heart of science education. Thus, the emphasis of liberal science training was based on organising and conceptual principles of investigation. He said these guiding principles:

> must be dealt with in the liberal curriculum in the contexts of proof and discovery in which they have their origin and function. They are not amenable to being abstracted, codified, and presented merely as linguistic principles. … They are virtually inventions, new conceptions arising from a specialist's experience with phenomena which are not yet encountered or not yet perceived in the course of ordinary existence; they contain the very essence of the speciality of the specialised

> sciences. … They take their origin from the needs posed by the study of phenomena in the special sciences, and their meaning can be found only in reference to these phenomena. … They need to be examined at work, in connection with the phenomena which first demanded their invention and in connection with some of the theories and conclusions which they make possible (Schwab, 1978, p. 142).

At the college level, Schwab suggested the need for science educators to prepare students to comprehend and evaluate original records of scientific inquiry, because:

> through informed discussion of the records of such inquiries, by an inductively aimed analysis of scientific works, the students comes to knowledge both of nature and of scientific inquiry; he learns to appreciate both the subject matters of science and science as a subject matter. The study of 'method' and study of 'content' rather than being divorced, to the impoverishment of each, are thoroughly wedded, to the enrichment of both. Scientific knowledge thus gained is least likely to be parrot-knowledge, for the student knows each conclusion in terms of the evidence which established it. ... knowledge *about* science thus gained … will be operational – gained, practiced, and perfected by operations of analysis, comparison, contrast, and criticism practiced upon varied examples of scientific inquiry (Schwab, 1978, p. 97).

Reading original scientific papers and guided discussions in the classrooms were essential features of liberal science education in Schwab's understanding. In this way, students would be teaching themselves to not only read and understand but also to liberate themselves from the need for a living teacher. Schwab's emphasis also reflects the general aim of liberal education which is to impart to students intellectual arts, skills, habits and attitudes important for a further individual search for reliable knowledge.

In tandem, Schwab also warned about pedagogical oversimplification when teaching science:

> by giving a simple picture of science we give the students a conception of the nature and magnitude of an intellectual problem shockingly different from a sound conception. What can

> we expect from this falsification, repeated *ad nauseam* throughout their training, except men who will find only frustration when they meet problems in all their magnitude and complication, or who will blindly simplify and vulgarize them until they fit the measures that we have taught? (Schwab, 1978, p. 99)

Schwab's warning could hold true about much of the science curriculum implemented in European schools today. Analysing the current status of European science education, Osborn and Dillon (2008) confirm that science teaching often portrays science as a set of objective and absolute truths to be approached and apprehended as abstract, disembodied and decontextualised knowledge. With reference to contemporary research, they also suggest that deep, as opposed to superficial, understanding comes by knowing not only why the right answer is right but also by knowing why the wrong answer is wrong. Such learning requires a space for students to discuss, think critically and consider others' views. Osborn and Dillon note their regret that the current practices of school science education offer little opportunity for such an approach.

3 On emotional values

The value of affective factors and emotions in science education is difficult to overestimate. Boring science as described by Osborn and Dillon (2008) is not particularly attractive to students, leading to many actively avoiding studying it. This problem surfaces as the inability of science teacher training institutions to recruit students and our department is no exception. Attention to emotive issues is reflected in the curriculum recommendations of the OECD (2006) forum which argues for increasing interest, motivation and competence in science studies amongst students and suggests the importance of:

- transmitting the excitement of science from the teacher to the student; and
- exposing students to the *joy* of discovery.

These recommendations emphasise the value of learning science combining intellectual engagement with feeling and action. Some students might experience the excitement of discovering scientific explanations of the structure of the universe, learning about quarks or global phenomena in the Earth etc, and this could be enough for them to

become highly motivated to study science. However, showing students the possibility of loving science for its beauty, logic, explanatory potential and intellectual challenges no longer seems common among teachers. The OECD (2006) attributes this problem to the fact that many teachers themselves do not have a sufficient level of comfort, confidence and excitement about science and maths. As Osborn and Dillon point out, there is considerable evidence that the recruiting of science teachers of the highest quality in many countries is either problematic or likely to become problematic in the coming decade.

Interestingly, Schwab highlighted the above problem more than 50 years ago:

> Training of the intellect must take place ('must' in the sense of 'unavoidably') in a milieu of feelings and must express itself in actions, either symbolic or actual. We may employ the emotional and active factors existent in student and teacher as means for intensifying and facilitating the process of intellectual education – or ignore them and suffer at the least a loss of them as effective aids, and possibly an alienation which places them in active opposition to our purposes. One sees precisely the latter consequence in many institutions. Because the emotional and active are considered as apart from the intellectual and of no concern to the teacher. … The curriculum becomes a bore, an unpleasant duty, a necessary evil, and, consequently, the recipient of energies left over from more compelling activities of campus life. Thereupon, we the teachers develop the legend of wayward youth wherein only the exceptional or the sick young person has intellectual interest. By this myth we protect ourselves from a view of our failure as teachers (Schwab, 1978, p. 108, paper originally published 1954).

It is argued that teachers who are without enthusiasm and excitement about the intellectual challenges of science cannot share these qualities with their students. Liberal education aims for students to engage in learning for the sake of enjoying the process of learning and knowing. But we must accept that at any time only a fraction of students at any level of education actually enjoy the learning process and accompanying intellectual challenges.

4 On intellectual values

Most small children are curious about physical phenomena and their explanations. They obtain personal satisfaction from knowing how things happen. Many of them like to think hard and can work hard in the learning process. However, this potential for intellectual work and patience in learning tend to disappear if it is not stimulated and practiced. As physical activities shape the body, intellectual activities shape the mind. Learning science demands disciplined activity and by that can provide intellectual gratification in the form of understanding.
In general, teachers in a "busy classroom" have limited possibilities (and abilities) to provide appropriate intellectual challenges for *every* student in the class in terms of Vygotsky's zone of proximal development. But a teacher can trigger the student's interest. For a long time, Sweden has been successful in producing famous sportsmen and musicians. A basis for succeeding in these fields is laid down by many dedicated teachers in compulsory schools and developed further in specialised (state and municipality supported) sport or music institutions (formal and informal). In a similar vein, in some schools enthusiastic teachers do engage students in science studies. For example, in the Swedish national physics competitions teams from the same schools have consistently taken the leading positions for many years consecutively, e.g. Östrabogymnasiet i Uddevalla (Roos, 2007).

It is also possible to draw attention to the role of parents in discovering and triggering children's interest in different activities. It seems probable that adults have less opportunity and possibility to realise and develop a child's interest in academic studies and solve puzzles in science in the home environment than they have to inspire music or sport activities. Thus, the vital role that the science teacher can play in awakening and stimulating the child's interest in science cannot be overemphasised.

Many extracurricular activities in existing science museums and centres in Sweden are organised under the banner "science is fun". Curriculum innovations also lead teachers to work in the direction of making learning science fun and doing science activities as an exciting leisure activity. However, Swedish curriculum LPO94 also states that "Education should be adapted to each pupil's circumstances and needs. Based on the pupils' backgrounds, earlier experiences, language, and knowledge, it should promote the pupils' further learning and acquisition of knowledge" (Skolverket, 2006). Unfortunately, in striving

to support weak students schools often neglect the needs of children who are genuinely interested in science, seek intellectual achievement as a goal in itself and are motivated (self-challenge) to study science. It also appears that many prospective science teachers do not have the skills to teach students who are interested in science, rather only to those who are not interested in it. Similarly, if a student is indifferent to technical, social and other everyday applications of science but wants to satisfy his/her own curiosity in a scientific understanding of the world many teachers appear not to have enough professional competence to help such students face real-life scientific challenges. Most teachers have not personally tried to solve problems from "Science Olympics" and other competitions.

According to Schwab (1978, 109), "The outcome of a successful liberal curriculum is *actively* intelligent people. … They *find pleasure* in planning their active lives and carrying out planned actions. They hanker to make, to create, whether the object is knowledge mastered, art appreciated, or actions patterned and directed". The role of an engaged teacher and of stimulating pedagogical context in achieving this outcome is obvious.

5 On pedagogical values

Schwab proclaims the value of reflection as being most important for the teacher and saw the main goal of teacher training as one of educating reflective practitioners. He wrote:

> If teachers are effectively to guide their students through and to the exercise of intelligence, they cannot, themselves, be unreflective. ... Teacher training ought to exhibit the material which their students will teach as matter for reflection rather than as matter for docile mastery. It ought to exhibit proposed ends and methods of instruction in some of their difficult, tangled, and doubtful connection with the imperfect and incomplete researches on society, the learning process, human personality, and similar topics from which they stem (Schwab, 1978, pp. 173-174).

Reiterating his argument, Schwab goes on to say:

> … in fact the teacher must be a learner. It is not enough for the teacher to master certain ways of acting as a teacher. This is only a capable apprentice. It is not enough to be master of flexible ways of acting. This is only to be a competent 'hand' who can function well when told what to do but who cannot himself administer. It is not even enough to possess organised knowledge of ways and means. This is to interpret a policy and tend to its efficient execution but not to be able to improve a policy or change it as problem change. Only as the teacher uses the classroom as the occasion and the means to reflect upon education as a whole (ends as well as means), as the laboratory in which to translate reflections into actions and thus to test reflections, actions, and outcomes against many criteria, is he a good 'progressive' teacher (Schwab, 1978, pp. 182-183).

The above quotations from Schwab, by which he himself tried to live, is what modern practitioner research envisages as being necessary for innovative pedagogical practice.

Reading and reflecting upon one's own practice demands well-developed skills of understanding accounts of other people's practices and activities. Making a critical assessment of research reports and curricular documents is a very challenging task for students. This demands an advanced level of understanding of the subject matter and *habits of inquiry* from them. Reflection on pedagogical practice also demands its theoretical conceptualisation. Schwab cited Dewey words: "It is the business of an intelligent theory to ascertain the causes for the conflicts that exist and then, instead of taking one side or other, to indicate a plan of operations proceeding from a level *deeper and more inclusive* than is represented by the practices and ideas of the contending parties" (Schwab, 1978, 180). In my experience, the use of theories for understanding science education practices is not a strong side of modern teacher training. Theoretical reflection normally results in each student having their own theory about what is the case, demonstrating a lack of real theoretical training.

Joseph Schwab has also promoted extensive discussion on this topic. He was a proponent of inductive teaching about and through scientific inquiry. However, he underlined the importance of understanding the practical role of theory as both the starting and final point of inquiry. In

his words, theoretical principles provide a frame of reference for any investigation and help in understanding the results of investigations.

> Conceptions – principles – must be invented or adapted by the investigator in order to determine his subject matter and his data. Before a scientific investigation can properly begin, there must be a restriction of subject matter, a choice of some part of the complex of things and events. A part is to be torn from context and studied as if it were, for the purpose of study, a complete and self-supporting whole. … The principles which determine such matters restrict and name the particular similarities, differences, elements, interactions, or other relations, among many available, to be noted and measured as the raw material from which to mould our finished knowledge. They determine what we will take as our data. The constructive character of scientific knowledge suggests expansion of the liberal curriculum beyond the rhetoric of conclusions which is its usual content. If a theory is to be known as a showing-forth of some aspect of the world, we must also teach what the theory is a theory of and what about that subject is and is not incorporated in the theory (Schwab, 1978, pp. 133-134).

Discussing and analysing together with his students why a particular field of science chooses to emphasise one conception of verification over another, describing and explaining the nature of the choices made by a particular field, Schwab was careful to consider how guiding theoretical principles work in the early and middle parts of inquiry, and to not only present the theory as the terminal part of an inquiry.

Teacher education today seems to have lost its tradition of providing prospective teachers with skills of developing students' abstract conceptual thinking (or theoretical thinking, in Vygotstky's terms). The focus is rather on varieties of practical acquisitions and uses of knowledge (like topics related to practical mathematics, everyday science, science and society). In a similar way as how Vygotsky distinguished between everyday knowledge and theoretical knowledge, Schwab made a clear distinction between common knowledge and what he called special knowledge (scientific knowledge). He expressed a concern that common knowledge and common sense is taking a bigger place in formal education. "An unrealistic valuation of common sense and common knowledge, which is already a prevailing attitude in our

society, is reinforced and confirmed. … and 'common sense' is given that peculiarly normative meaning in which it is set over against special knowledge as 'good' sense opposed to the vagaries on some bizarre point of view" (Schwab, 1978, p. 131).

Swedish science teacher education today encounters a situation where both the explicitly and implicitly stated curriculum values and priorities are on one hand more on pedagogy than on subject knowledge and, on the other, more on inductive ways of knowledge acquisition than on deductive ways. Teacher education curriculum is focusing on providing students with tools to be reflective in educational sciences rather than in natural sciences and this is prioritising the teaching of inductive "constructivist" pedagogical approaches and neglects deductive, "theoretical" ones, a situation that can partly be explained by the approach of natural sciences that mainly uses an inductive method of inquiry.

Common sense and the everyday practice of inductive inquiry can however lead to an overflow of information and details. As Schwab (1978, pp. 92-93) argues, "The more parts we know more about, the more onerous and difficult is the problem of understanding their interconnections and thus constituting from our knowledge of the parts the knowledge of the whole which is our aim". It is here that the explanatory power of theories comes into play and provides abstract concepts and principles that help understand the problem of the interconnections and interrelations of the parts and the whole, leading to the pedagogical dilemma of finding a balance in teaching between the abstract and concrete. According to Hegel (1770-1831), abstract constructs are the simplest. Hegel's philosophical law of general development which applied to educational work suggests that learning should start from the simplest (meaning abstract) principles towards more complex and concrete applications (including the complexity of real objects). This gives a theoretical justification for implementing a deductive pedagogical approach. However, it seems that a balance between inductive/practical and deductive/ theoretical approaches in teacher education is not being found.

Theoretical reflections, meaning the use of real theories and abstract thinking, are under-utilised in the training of prospective teachers. Prospective teachers' interests in developing methods for advancing students' skills of abstract-theoretical thinking in science education almost do not exist either (as reflected, for example, in the content of

their examination projects). This can partly reveal the absence of interest by teacher educators in this matter (as appears in applications to the Educational Committee of the Swedish Research council – UVK). In summarising, science teacher education appears to be providing prospective teachers with limited skills to develop students' theoretical thinking.

6 Conclusions and implications

When we talk about the teaching of science as inquiry, several of Schwab's points and ideas can be of immense assistance. Schwab (1978) extensively discussed and exemplified similarities and differences of inquiry applied in different fields of science as well as in the field of science education. He pointed out that there is something common to all scientific inquiries and there is something unique to each and every one. For him, understanding the nature of choices made by a particular science or scientist at one particular time to emphasise a particular conception of verification over another was an important methodological principle that unifies the study of any field of human inquiry. There are thus many different forms of scientific inquiries in various fields of scientific research and it is important that teacher students be aware of this variety. There is no unique and encompassing scientific inquiry.

Scientific knowledge is fluid. The knowledge produced in one inquiry changes in the light of the results of subsequent inquiries. Changes and revision occur normally not because the previous knowledge was false but because it was limited and restricted to certain frames of reference. The refinement of both theories framing inquiries and the tools and competencies in a particular inquiry naturally leads to a cumulative refinement of knowledge. Such a historical perspective of science education gives students a better chance to understand the development of scientific inquiry itself. However, a historical perspective in subject didactics is not commonly found in courses in today's science teacher education. The same is true about research papers on pure science topics which Schwab persistently recommended for study in teacher education in order to experience teaching as an inquiry, providing genuine opportunities for the development of inquiry skills.

It is possible for prospective teachers in Sweden to choose a varied subject combination, such as physics and history or biology and mathematics, but such a choice is not accompanied by them having a unifying theoretical base that can become a common platform for pedagogical work in diversified fields of knowledge. According to Schwab, working knowledge of the principles of scientific inquiry and the nature of science practiced in science education can be considered as "the modern functional equivalent of the logic of the generalised liberal arts" (p. 141). A course in the philosophy of knowledge has also not yet entered Swedish teacher education. The challenge of finding a place for liberal values in science education is not an easy one to meet. Teacher education often has limited opportunities to provide a deep knowledge of science to students without extra economic support from the government. Teaching small groups of students (due to low enrolment levels for science teacher education) is not economically feasible if the number of contact hours is not reduced. The OECD (2006) points out that governments and relevant institutions should provide adequate resources for teacher training and classroom activities. They advise that flexible, more attractive curriculum structures with updated science and technology contents should also be devised.

The approach of complementarity rejects clear-cut answers to existing problems. For example, science education for everyday life (Aikenhead, 2006) cannot be the only solution modern science studies. In different circumstances and for different people, practical relevance, abstract knowledge combined with a cognitive challenge can instil enthusiasm for science. Swedish high school physics teachers with "lifelong teaching experience" recognise that students' capacity for abstract thinking has been diminishing. They do not acquire much of it in secondary school (Roos, 2007). This observation is also visible in science teacher education courses. The competence to educate is connected with the educability of students. Skills of abstract thinking cannot be developed at a more advanced level when basic skills are lacking. An analogy can be drawn with advanced music skills. A focus on the development of abstract conceptual thinking should thus penetrate the entire education system.

The purpose of this paper was to revisit the first well-documented theoretical and practical attempts to introduce liberal science education to the college-level curriculum. I consider this relevant for understanding some of the weaknesses and possible remedies of curriculum development in modern science teacher education. Any

attempt to work with scientific enquiry requires that we follow its basic principles and learn from original accounts of research which initially introduced such an approach into our field of education. I end this paper using the words of Osborne and Dillon (2008): "The major determinant of any education system is the quality of its teachers. Teachers who are knowledgeable and effective communicators are able to engage their students in substantive conversations, ask searching questions and have a deep understanding of their own subject." These words articulate the ideals of liberal science teacher education that Joseph Schwab has been developing.

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In-Service Experienced Chemistry Teachers' Views on Novice Teachers' Competences for Teaching Chemistry

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ABSTRACT

The teachers' profession is becoming ever more demanding because we are not only trying to educate young people to become responsible citizens, but it is expected that we should also give them lasting and meaningful knowledge of different areas as well as the ability to solve problems in everyday situations. The education of teachers plays a significant role in developing a good teacher, but a large part of this process also depends on experienced teachers mentoring novices when they enter the education system for the first time. In this paper we present mentors' opinions on newly qualified teachers' specific competencies for teaching chemistry in primary and secondary school. Altogether, 48 experienced teachers (mentors) from primary and secondary schools participated in the study. A questionnaire was used to assess the mentors' opinions of mentoring practices relative to the novice teachers' competencies for effective teaching. The results show that, in general, mentors encourage novice teachers to develop those competencies they consider to be important for good chemistry teaching. According to the mentors, novice teachers have quite well-developed general knowledge for teaching chemistry. The results also provide evidence that mentors usually offer only a medium level of help to novice teachers in their preparation for teaching chemistry in the classroom, despite the feeling that novice teachers are not sufficiently competent to teach elementary or secondary school chemistry. The results also seem to show that mentors should be sufficiently well-educated in the novice teacher mentoring process, and not only for supporting the novices to acquire specific competencies.

Key words: experienced teachers' mentoring, novice teacher, competencies, chemistry teaching

1 Introduction

Approaches to learning and the outcomes of learning are interconnected and relate to differences in how learning is conceptualised (Marton et al., 1993). Teachers' conception of teaching also develops through their direct experiences in the classroom (Larsson, 1986). Effective teaching lies at the centre of effective learning, and unique mentoring is required for effective teaching (Hudson et al., 2005).

Lave and Wenger (1990) believe that learning as it normally occurs is a function of the activity, context and culture in which it takes place and is therefore situated. Situated learning is related to Vygotsky's notion of learning through social development. Lave and Wenger (1990) also argue that social interaction is a critical component of situated learning; this means that learners become involved in a "community of practice" which embodies certain beliefs and behaviours that are to be acquired. As the beginners or newcomers move from the periphery of this community to its centre, they become more active and engaged within the culture and hence assume the role of an expert or old-timer. Further, situated learning is usually unintentional rather than deliberate. These ideas are called the process of "legitimate peripheral participation". Other researchers have further developed situated learning theory. Brown, Collins and Duguid (1989) emphasise the idea of cognitive apprenticeship: "Cognitive apprenticeship supports learning in a domain by enabling students to acquire, develop and use cognitive tools in authentic domain activity. Learning, both outside and inside school, advances through collaborative social interaction and the social construction of knowledge." The situated learning theory represents a theoretical framework for interpreting and enhancing the classroom and providing broader school experiences for novice teachers (Cobern, 1996).

Many of the positive effects achieved during the time of study and preparation for the pedagogical profession are nullified with the commencement of professional work. All of this confirms the need to form a systematic model for a "culture of initiation" of trainee teachers into the profession (Valenčič-Zuljan & Vogrinc, 2007).

According to the Green Book on educating teachers in Europe, there is a blind spot with regard to the systematic and harmonic initiating of trainee teachers into the professional culture of schools in the present system of teacher education (Buchberger et al., 2000).

The mentor plays a key role in supporting the professional development of a novice teacher, but it is necessary to differentiate between quality teaching and quality mentoring (Lindgren, 2005). An expert teacher is not self-evidently a good mentor to a junior colleague. For quality mentoring, among other things it is necessary to be familiar with the goals of mentoring and the tasks of a mentor. In order to be able to appropriately plan an individual's professional development, a mentor has to recognise the characteristics of trainee teachers and their professional development.

The professional development of a trainee teacher depends on various factors. Their classroom actions are significantly determined by their own experience as learners, their beliefs, conceptions of instruction, knowledge and the role of a teacher (Calderhead & Robson, 1991). For this reason, it is important to ask what these competencies are in pre-service and trainee teachers, and how we can affect them. Valenčič Zuljan (2007) finds that pre-service teachers largely hold conceptions typical of the transmission model of education. Many sources contribute to how beginning teachers understand teaching, but none surpasses actual classroom experience (Feiman-Nemser, 2001). When involved in classroom experiences, novice science teachers have the opportunity to observe others teach, interact with students, teach lessons themselves, and reflect on teaching experiences and students' learning (Van Driel et al., 2002; Koballa et al., 2007). According to Volkmann and Anderson (1998), the mentor must provide opportunities for novice teachers to experience classroom conflict and the dilemmas of teaching. Conceptions of the mentor's role include: coach, model, instructional supporter, evaluator, confidant, information source, feedback-giver, and explicator of personal teaching knowledge and beliefs (Cameron-Jones & O'Hara, 1995); coupled with the following responsibilities; introducing novice teachers to school life, school customs, and school culture, stimulating them to reflect on their own teaching, and bridging the gap between theory and practice (Zanting et al., 2001).

Beginning teachers' conceptions during their participation in pre-service or in-service classroom experiences serve as referents and influence their decisions and actions concerning their future classroom practice (Koballa et al., 2007). During this period of novice teachers' initial autonomy in the classroom, experienced veteran teachers' mentoring plays an important part in the professional development of the beginning teacher. Mentoring provides opportunities for novice science

teachers to obtain support and guidance not readily available to them through other means (Luft et al., 2003). Mentoring is often linked to the retention and continued success of all beginning science teachers through the development of competencies in teaching, assessment, and classroom management (Wang, 2001).

Mentoring also benefits the veteran teachers who serve as mentors by enhancing their commitment to teaching and providing them with insight into their own professional growth (Hunter & Kiernan, 2005). According to Hudson, Skamp and Brooks (2005) and Hudson (2005), novice and mentor teachers should have an active and productive role in the process for the mentoring to be successful. Five key factors describe effective mentoring in science teaching: (1) personal attributes: complex personal interactions between the novice teacher and the mentor, the novice teacher and the students, the mentor and the students, and between the students themselves take place in the classroom environment; (2) system requirements: to provide the direction and framework for regulating the quality of science teaching practices; (3) pedagogical knowledge: novice teachers have to develop the knowledge for teaching science with the guidance of an experienced teacher; (4) modelling: the mentor is expected to effectively model the teaching practice with high levels of teaching competency (i.e. a rapport with the students, lesson planning, syllabus language, hands-on lessons and classroom management) so that the beginning teacher can learn from it; and (5) feedback: this is a vital part of mentoring, novice teachers must reconsider their own teaching according to the mentor's oral or written feedback to improve their teaching practice.

The in-service mentoring process is also important in the context of teacher education policy. This means that science teachers' education should be developed in such a way that mentors and novice science teachers who enter the school environment are made aware of all possible positive and negative aspects of teaching under mentors' supervision. For that reason, teacher education policymakers should also be aware of the views of teacher mentors and novice teachers on the process of in-service mentoring so that these aspects can be integrated into the novice teachers' and in-service mentors' education process and adequately evaluated and modified if needed.

Purpose of the research

In the Republic of Slovenia novice chemistry teachers can begin their teaching in two ways after they graduate from the Faculty of Education (for a primary school chemistry teacher; pupils aged 14 and 15) or from the Faculty of Chemistry and Chemical Technology (for secondary school chemistry; students aged 15 to 18). A trainee teacher is defined by the Law on Organising and Financing Education (Official Gazette, Republic of Slovenia, 12/96) as a skilled worker commencing their career in a school or kindergarten in a direction and at a level commensurate with their professional education and with the aim of enabling independent work. As recently as ten years ago, most Slovenian teachers entered the profession without any planned guidance, according to the "sink or swim" principle. With the coming into force of the revised regulations on in-service teacher training and the professional exam for experts in the education field (Official Gazette, 30/1996), the state has begun to pay more attention to the initiation of trainee teachers (Valenčič-Zuljan et al., 2006).

The main purpose of the research is to identify and describe differences between more and less successful mentors, according to their opinions, in evaluating the importance of general competencies for teaching chemistry in primary and secondary school, novice teachers' qualifications regarding these competencies and how much help the novice teacher needs to adequately develop these competencies. Learning more about the conceptions of mentoring held by mentors may lead to a better understanding of how to foster pre-service chemistry teacher education, and how to educate mentors to become more supportive when novice teachers start work in the teaching profession.

Research questions

The questions posed in this study are:

(1) Is there a significant difference between teachers who perceive their own mentoring as successful and those who do not regarding which general competencies for teaching chemistry teachers should possess to be effective?

(2) Is there a significant difference between teachers who perceive their own mentoring as successful and those who do not regarding beginning teachers' competencies to teach chemistry?

(3) Is there a significant difference between teachers who perceive their own mentoring as successful and those who do not concerning how much help mentors should give a beginning teacher for them to become an effective chemistry teacher?
(4) Is there a significant difference in the mentors' opinions between beginning teachers' general competencies to teach chemistry and the importance of a competence for being an effective chemistry teacher?

2 Method

Sample

A total of 48 primary and secondary school teacher-mentors (91.7% females; 8.3% males) participated in this study: 77.1% teach at primary school (students aged 13 and 14), and 22.9% at secondary school (students aged 15 to 17). Altogether, 60.4% of the teachers participating in this study finished the two-year teacher education programme before 1987 when the university programme started, while 39.6% of them finished the university programme after 1987. Most of these teachers graduated from the four-year programme at the Faculty of Education and became teachers of chemistry and another subject (biology, physics, home economics) (83.3%), while others finished the Faculty of Chemistry and Chemical Technology (16.7%). Three teachers had completed a master's degree in chemistry or chemical education, but no one held a PhD. The teachers participating in this study had 23.1 years (SD=7.96 years) of teaching experience on average, but all of them had taught for more than 6 years and 70.8% of them had taught chemistry for over 20 years.

According to Slovenian school legislation, a teacher can become a mentor to a beginning teacher after receiving the title of mentor, adviser or counsellor. In this study, 16.7% of the teachers were mentors, 72.9% were advisers and 8.3% were counsellors. In this paper all teachers will be referred to as a mentor, regardless of their actual title. Teachers acting as mentors had on average 2.7 (SD=1.71) beginning teachers under their supervision at the time the data were collected; most mentors (33.3%) had one beginning teacher, 25% had two and 14.6% had three or more. Altogether, 39.6% of beginning teachers did their initial teaching according to Article 2 (a novice teacher does not teach independently,

but is familiarised with the teaching process with mentors' help, and the Ministry of Education approves their Traineeship), and 60.5% according to Article 46 of the Regulations on Traineeship (novice teachers independently teach with the help of a mentor).

Instrument

A 107-item questionnaire was used to assess mentors' opinions of mentoring practices regarding beginning chemistry teachers and competencies for effective teaching. This questionnaire is a modified form of a questionnaire used in previous research (Valenčič-Zuljan & Vogrinc, 2007). The modified questionnaire had two parts. In the first part, mentors had to provide some personal data (e.g. gender, place and years of teaching, professional title etc.). In the second part, they had to describe their views about: (1) their competencies to be a mentor; 24 items (e.g. knowing the characteristics of learning and of adult teaching; help and guidance in lesson preparations for the beginning teacher etc.); (2) beginning teachers' general competencies for teaching; 33 items (e.g. ability to prepare different teaching materials; structuring the lesson according to specific teaching methods etc.); and (3) competencies for chemistry teaching; 36 items (e.g. developing an ability of scientific reasoning; knowing, understanding and applying the concepts of science etc.).

The response to each item (competencies) is on a five-point Likert-type scale whereby: 1 = not important, 2= less important, 3 = medium important, 4 = relatively important, and 5 = very important. For the purposes of this paper, only the beginning teachers' general competencies for teaching (24 items) of the second part of the questionnaire were used. The internal consistency (Cronbach alpha) of the part of the questionnaire used in this paper (specific competencies for chemistry teaching) was 0.73.

Research design

The design of the research was a quantitative, non-experimental, cross-sectional and descriptive study. The questionnaire was distributed to 250 primary and secondary schools via ordinary mail as a printed version in February 2005. After the questionnaire was completed, teachers who had been mentoring a beginning teacher sent the questionnaire back to the university. Only 19.2% of the questionnaires were returned due to the very low proportion of teachers who had mentored a beginning teacher.

The data from the questionnaires were analysed using the methods of descriptive and inferential statistics. Descriptive statistics (M, SD) were obtained to illustrate the competence characteristics. A paired-sample t-test was used to determine differences in competencies and in mentors' views about chemistry teachers' competencies. The ranges were also used to illustrate the importance of specific competencies in the mentors' opinions. Statistical significance ($p \leq 0.05$) was determined for all differences between the calculated means.

3 Results

The mentors self-evaluated their efficiency in the mentoring process. Altogether, 28 mentors (58.3%) thought they are very successful in mentoring beginning teachers (Group 1), 20 mentors (39.6%) believed they achieve medium success in mentoring a novice teacher, and only one teacher (2.1%) thought they were unsuccessful as a mentor to novice chemistry teachers (Group 2). This teacher was also assigned to the group of less successful mentors according to their own evaluation of their mentoring achievements. The results are presented in four parts. The first part presents the differences between mentors who perceived their own mentoring as more or less successful concerning which general competencies for teaching chemistry are more or less important for a successful teacher.

Table 1. *Differences in opinions between mentors who perceive their own mentoring as more (MS) or less successful (LS) concerning the importance of general competencies for teaching chemistry.*

Competence	*Mentors' self-evaluation*	*M*	*SD*	*t*	*df*	*p*
G1: Qualification for teaching chemistry.	MS	4.86	0.45	0.06	46	0.954
	LS	*4.85*	*0.37*			
G2: Qualification for generating different educational materials.	MS	4.79	0.42	0.67	46	0.509
	LS	*4.70*	*0.47*			
G3: Qualification for formulating clear, long-term and operational learning goals.	MS	4.71	0.60	0.69	46	0.491
	LS	*4.60*	*0.50*			
G4: Appropriate lesson structuring according to different stages of the education process.	MS	4.82	0.39	**2.29**	**26.3**	**0.030**
	LS	*4.40*	*0.75*			
G5: Adequate selection of teaching methods and organisation of learning activities according to learning goals.	MS	4.79	0.50	0.86	46	0.392
	LS	*4.65*	*0.59*			

G6: Maintaining classroom discipline, solving students' educational and behavioural problems.	MS	4.79	0.50	1.58	32.7	0.123
	LS	*4.50*	*0.69*			
G7: Adaptation of teaching to students with specific disabilities (gifted students, learning and behavioural difficulties, physical disabilities).	MS	4.57	0.69	0.78	46	0.437
	LS	*4.40*	*0.82*			
G8: Implementation of problem-oriented teaching, project and field work.	MS	4.64	0.62	**2.32**	**46**	**0.025**
	LS	*4.20*	*0.70*			
G9: Conducting student evaluations according to clear criteria and knowledge standards and ability to justify the evaluation to students.	MS	4.68	0.61	-1.65	42.0	0.107
	LS	*4.90*	*0.31*			
G10: Self-analysis and self-evaluation of the teaching process.	MS	4.82	0.39	1.87	25.1	0.073
	LS	*4.45*	*0.83*			
G11: Fulfilment of administrative duties.	MS	4.21	0.96	1.01	46	0.320
	LS	*3.90*	*1.21*			

The average importance (the sum of all general competencies on a five-point scale) of general competencies for teaching chemistry is given according to the mentors who perceived their mentoring as successful (Group 1) 4.70 (SD=0.56) and according to mentors who perceived their mentoring as less successful (Group 2) 4.50 (SD=0.66); the difference is not statistically significant (t=1.91; df= 46; p =0.062).

More detailed analyses of the differences between the two groups of experienced teachers show that mentors differ in just two competencies. More successful mentors think that competence G4 (Table 1) is very important, but those mentors who did not perceive their own mentoring as very successful do not share the same feeling. The difference in opinion between the two groups of mentors is statistically significant (p = 0.030). The same statistically significant difference (p = 0.025) is seen when comparing the opinions of more and less successful mentors in implementing problem-oriented teaching, project work and field work in chemistry teaching.

The second part of the results refers to mentors' views about the level to which general competencies for teaching chemistry are developed in novice teachers.

Table 2. *Differences in opinions between mentors who perceive their own mentoring as more (MS) or less successful (LS) concerning novice teachers' competencies to teach chemistry.*

Competence	*Mentors' self-evaluation*	*M*	*SD*	*t*	*df*	*p*
G1: Qualification for teaching chemistry.	MS	4.04	0.74	-0.46	46	0.650
	LS	*4.15*	*0.98*			
G2: Qualification for generating different educational materials.	MS	3.89	0.69	0.17	46	0.864
	LS	*3.85*	*1.04*			
G3: Qualification for formulating clear, long-term and operational learning goals.	MS	3.18	0.91	-1.13	46	0.263
	LS	*3.50*	*1.05*			
G4: Appropriate lesson-structuring according to different stages of the education process.	MS	3.79	0.96	0.75	46	0.460
	LS	*3.55*	*1.23*			
G5: Adequate selection of teaching methods and organisation of learning activities according to learning goals.	MS	3.89	0.74	1.25	46	0.218
	LS	*3.60*	*0.88*			
G6: Maintaining classroom discipline, solving students' educational and behavioural problems.	MS	2.61	0.88	-1.91	46	0.062
	LS	*3.15*	*1.09*			
G7: Adaptation of teaching to students with specific disabilities (gifted students, learning and behavioural difficulties, physical disabilities).	MS	2.75	0.97	0.72	46	0.473
	LS	*3.05*	*1.19*			
G8: Implementation of problem-oriented teaching, project and field work.	MS	3.57	0.96	1.18	46	0.245
	LS	*3.55*	*0.89*			
G9: Conducting student evaluations according to clear criteria and knowledge standards and ability to justify the evaluation to students.	MS	3.21	0.92	-0.46	46	0.650
	LS	*3.35*	*1.14*			
G10: Self-analysis and self-evaluation of the teaching process.	MS	3.29	0.81	0.14	46	0.887
	LS	*3.25*	*0.91*			
G11: Fulfilment of administrative duties.	MS	3.64	0.95	-0.19	46	0.850
	LS	*3.70*	*1.13*			

The average importance of all general competencies of novice teachers (the sum of all general competencies on a five-point scale) for teaching chemistry is presented according to mentors who perceived their mentoring as successful (Group 1) 3.4 (SD = 0.84) and mentors who perceived their mentoring as less successful (Group 2; medium or not successful) 3.51 (SD= 1.05); the difference is not statistically significant (t = -0.364; df = 28.3; p = 0.718). More detailed analyses (Table 2) of differences regarding separate competencies show that the two groups of mentors do not differ in opinions about novice teachers' general competencies for teaching chemistry.

The third part shows the results of a paired-sample t-test analysis of more and less successful mentors' views on the amount of help for each

general competence beginners would require in order to become a more successful chemistry teacher.

Table 3. *Differences in opinions between mentors who perceived their own mentoring as more (MS) or less successful (LS) regarding the help mentors should give beginning teachers to develop general competencies to teach chemistry.*

Competence	*Mentors' self-evaluation*	*M*	*SD*	*df*	*t*	*p*
G1: Qualification for teaching chemistry.	MS	3.39	1.26	0.26	46	0.799
	LS	*3.30*	*1.22*			
G2: Qualification for generating different educational materials.	MS	3.43	0.92	1.22	46	0.229
	LS	*3.05*	*1.23*			
G3: Qualification for formulating clear, long-term and operational learning goals.	MS	3.93	0.81	**2.57**	**46**	**0.013**
	LS	*3.20*	*1.15*			
G4: Appropriate lesson-structuring according to different stages of the education process.	MS	3.71	1.18	**2.11**	**46**	**0.041**
	LS	*3.00*	*1.12*			
G5: Adequate selection of teaching methods and organisation of learning activities according to learning goals.	MS	3.68	1.02	1.65	46	0.106
	LS	*3.20*	*0.95*			
G6: Maintaining classroom discipline, solving students' educational and behavioural problems.	MS	4.11	1.26	1.86	46	0.069
	LS	*3.40*	*1.35*			
G7: Adaptation of teaching to students with specific disabilities (gifted students, learning and behavioural difficulties, physical disabilities).	MS	3.93	1.36	-0.96	46	0.341
	LS	*3.45*	*1.43*			
G8: Implementation of problem-oriented teaching, project and field work.	MS	3.68	1.28	0.35	46	0.725
	LS	*3.55*	*1.19*			
G9: Conducting student evaluations according to clear criteria and knowledge standards and ability to justify the evaluation to students.	MS	4.21	0.88	**2.65**	**46**	**0.011**
	LS	*3.35*	*1.39*			
G10: Self-analysis and self-evaluation of the teaching process.	MS	3.71	1.12	0.19	46	0.849
	LS	*3.65*	*1.18*			
G11: Fulfilment of administrative duties.	MS	3.25	1.32	0.00	46	1.000
	LS	*3.25*	*1.33*			

The average importance (the sum of all general competencies on a five-point scale) of the general competencies for teaching chemistry is shown according to mentors who perceived their mentoring as successful (Group 1) 3.63 (SD = 1.13) and mentors who perceived their mentoring as less successful (Group 2; medium or not successful) 3.30 (SD = 1.23); the difference is not statistically significant (t=1.80; df= 46; p =0.079). However, more detailed analysis shows (Table 3) there are some general competencies that more successful teachers perceived as being more

important than did teachers who did not consider themselves to be successful mentors. Comparing the average value of all eleven general competencies reveals that, for all competencies except G11 (the values are the same for both groups) the more successful mentors thought they should help novice teachers more than those mentors who are not as successful. There is a significant difference in the two groups of opinions about the help they give to novice teachers as regards three competencies (G3, G4 and G9). This means that more successful mentors thought that novice teachers need more help with generating long-term and operational learning goals, structuring learning units according to different stages of the education process and conducting student evaluations according to knowledge standards and the effective introduction of grades to students, than did those mentors who did not perceive their own mentoring as successful.

The final part of the results shows the overall view of mentors concerning differences between novice teachers' qualifications concerning general competence and its importance for managing a successful educational process.

Table 4. *Differences in mentors' views on novice teachers' competencies to teach chemistry (qualification) and relevance of a competence for a novice teacher to be an effective chemistry teacher (importance).*

Competence		*M*	*SD*	*t*	*df*	*p*
G1: Qualification for teaching chemistry.	qualification	4.08	0.85	5.76	47	**< 0.001**
	importance	4.85	0.41			
G2: Qualification for generating different educational materials.	qualification	3.88	0.84	7.00	47	**< 0.001**
	importance	4.75	0.44			
G3: Qualification for formulating clear, long-term and operational learning goals.	qualification	3.31	0.97	9.59	47	**< 0.001**
	importance	4.67	0.56			
G4: Appropriate lesson-structuring according to different stages of the education process.	qualification	3.69	1.07	5.88	47	**< 0.001**
	importance	4.65	0.60			
G5: Adequate selection of teaching methods and organisation of learning activities according to learning goals.	qualification	3.77	0.81	6.87	47	**< 0.001**
	importance	4.73	0.54			
G6: Maintaining classroom discipline, solving students' educational and behavioural problems.	qualification	2.83	0.70	10.4	47	**< 0.001**
	importance	4.67	0.60			
G7: Adaptation of teaching to students with specific disabilities (gifted students, learning and behavioural difficulties, physical disabilities).	qualification	2.88	1.06	10.2	47	**< 0.001**
	importance	4.50	0.74			
G8: Implementation of problem-oriented teaching, project and field work.	qualification	3.56	0.92	5.22	47	**< 0.001**
	importance	4.46	0.68			

G9: Conducting student evaluations according to clear criteria and knowledge standards and ability to justify the evaluation to students.	qualification	3.27	1.00	10.3	47	**< 0.001**
	importance	4.77	0.52			
G10: Self-analysis and self-evaluation of the teaching process.	qualification	3.27	0.84	9.62	47	**< 0.001**
	importance	4.67	0.63			
G11: Fulfilment of administrative duties.	qualification	3.67	1.02	1.86	47	0.07
	importance	4.08	1.07			

The paired-sample t-test, used to compare differences in novice teachers' qualifications for general competencies, and the importance of a competence for an effective chemistry teacher in the mentors' views (data were not analysed separately for more and less successful mentors), showed (Table 4) that in most cases the differences are statistically significant ($p \leq 0.001$). Only for the G11 competence was the difference not significant, which means that, in the mentors' view – novice teachers' qualification for fulfilling administrative obligations in a classroom or school in general is not statistically significantly different from the importance of this competence in the school environment. This means the mentors believed that for almost all competencies beginning teachers are not sufficiently educated to meet the standards of an effective chemistry teacher.

4 Discussion

The results can be summarised by answering the research questions. The first research question is connected with a significant difference between teachers who perceived their mentoring as successful and those who did not concerning their opinions about which general competencies for teaching chemistry teachers should possess to be effective. On average, both groups of mentors (more and less successful in the mentoring process) perceived teachers' general competencies for teaching chemistry in primary and secondary school as quite important (the average level on a five-point Likert scale is 4.7 for more and 4.5 for less successful mentors). The overall difference between the groups of mentors is not statistically significant but, when comparing the average value of a specific general competence, it may be concluded that more successful mentors attributed higher grades to all competencies, except to competence G9 (Conducting student evaluations according to knowledge standards and the effective introduction of grades to students) to which the less successful mentors attributed a higher grade.

Mentors in the two groups have significantly different opinions regarding the importance of just two general competencies: structuring learning units according to different stages of the education process and problem-oriented teaching, project work and field work in chemistry teaching. It may be summarised that more successful mentors more clearly see the novice teachers' lack of planning of the education process, even at the basic level and also at the more demanding level regarding the organisation of teaching outside of traditional ex-cathedra teaching. These results show that more targeted professional development is needed for less successful or less self-confident veteran teachers in their role of mentoring, especially as regards competencies they think are not so important for successful chemistry teaching.

The second research question relates to the significant difference between teachers who perceived their mentoring as successful and those who did not in their opinions about beginning teachers' competencies to teach chemistry. The more successful mentors thought that novice teachers have less developed general competencies for teaching chemistry than did the less successful ones. Both groups of mentors assigned only an average level of novices' qualifications concerning all general competencies for chemistry teaching. These results suggest that pre-service teacher training should be organised in such a way that the novice teacher will enter the classroom after graduation better prepared to lead the education process at all levels. University teacher education programmes should be organised in such a way that general competencies for teaching are developed during special didactics courses and also during practical education in a school environment. Primary and secondary school teachers who lead practical education should therefore be systematically educated to properly introduce pre-service teachers into classroom activities, where all general competencies would be introduced.

The third research question refers to the significant difference between teachers who perceived their mentoring as successful and those who did not in their opinions about how much help mentors should give a beginning teacher for them to become an effective chemistry teacher. Both groups of mentors stated they offer a medium level of help to novice teachers to develop general competencies for teaching chemistry. It can also be summarised that, in their opinion, more successful mentors generally give more help than do less successful mentors, although the difference is not statistically significant. In only three out of

eleven competencies is there a statistically significant difference between the two groups of mentors. More successful mentors believed that beginning chemistry teachers need more help generating long-term and operational learning goals, structuring learning units according to different stages of the education process, and conducting student evaluations according to knowledge standards and the effective introduction of grades to students than those mentors who did not perceive their mentoring as successful.

The last research question relates to the significant difference between beginning teachers' general competencies for teaching chemistry and the importance of a competence for an effective chemistry teacher, according to the mentors' opinions. It may be concluded from the statistical analysis that all mentors thought that novice chemistry teachers' qualifications do not meet the required standard for teaching competencies. That is why they believed additional help should be provided to novices in order to develop adequate teaching techniques.

Overall, the results of this study seem to provide evidence that mentors should be properly educated in the mentoring process for novice teachers, not only in supporting novices to acquire specific competencies (Devetak & Glažar, 2007) but also to develop more general skills to teach chemistry. The findings suggest that mentors should develop ways of detecting novice teachers' problems during their classroom activities. It is also important that mentors are able to adequately intervene in the beginning teachers' teaching process and help them attain more effective teaching strategies. In this process the mentor must be able to coach, model, support, evaluate, and give information and feedback to the novice teacher (Devetak & Glažar, 2007). The findings of this study also imply that the conceptions of mentoring held by veteran chemistry teachers should be considered when organising in-service professional development programmes for mentors. The findings here also indicate that more contextualised education for mentors must be promoted, with illustrations of actual problems mentors and beginning teachers come across during their classroom practice. Teacher trainers should lay great stress on the development of harmonious and productive relationships between the mentor and novice teacher, and mentors should be aware that they play the role of a moderator in this relationship.

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The Concept of Knowledge in Teacher Education

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ABSTRACT

In the article I address the question of how the relationship between subject content and learning outcome in teacher education should be understood. The shift towards more goal-oriented, instrumental teacher education, as seen in the Bologna Process, and the belief that one can measure knowledge with exact instruments of evaluation, are based on assumptions of a positivist ontology and epistemology. At the same time, there are examples of subject content within the educational sciences based on fundamentally different concepts of truth and scientific knowledge. This is, for instance, the case when the formation of knowledge is seen as a socio-cultural or contextual process. Therefore, depending on ontology and epistemology, knowledge cannot always be produced in the context of an uncomplicated relationship between subject contents and learning outcomes. I will argue that the educational sciences studying this relationship run the risk of reducing the epistemological contradictions to simple problems of the distribution and administration of knowledge. It is instead important to discuss the production of knowledge in teacher education from both an overall and a more specific point of view, from both the outside and from within a specific educational content. To make this point, I will take Literary Studies as an example where the theory of literature from the early 20th century onward, from early formalism to post-structuralism, has pointed out that poetic language is predominantly non-communicative, and its place in teacher education often tends to reduce it to an instrument of communication. This kind of contradiction may point out other areas where critical knowledge cannot be produced as an unproblematic and explicit outcome in teacher education.

Key words: epistemology, literature, learning outcome, positivism

1 Introduction

In recent years there has been a shift in the teacher education programmes of many European countries towards a more instrumental and goal-oriented knowledge process. This can be seen in both the idea of learning outcomes as a matrix producing subject contents and in the triple helix concept (Papadakis 2008, Rasmussen 2008). At the same time, the idea that scientific research within different academic disciplines should form an important part of the otherwise vocational education of teachers is being stressed. Therefore, the teacher education programme should be seen as a demanding academic career. Nevertheless, up until now the teaching profession has had a low status in most European countries and teacher education is seldom a choice for the talented student. That is why it is now being emphasised that the education of teachers should be interdisciplinary and that the latest academic findings and research about the subject matter should be made available to student teachers. However, depending on its ontological and epistemological base, knowledge cannot always be produced in the context of an uncomplicated relationship between subject contents and learning outcomes. All academic disciplines, even the research-based knowledge of the hard sciences, rest somewhat on normative epistemology. Some of these normative aspects – for example evident in the different concepts of truth – at times contradict the instrumental, goal-oriented outcome of education. These contradictions may also be seen as tensions, both within a specific discipline and outside of it, in the more overall context of education as well as in the demands of society at large.

Using Foucault's terminology, these tensions or ruptures have a tendency to surface as discursive formations that are really no more than the repressive presence of what they do not say (Foucault, 1969/1972). From within a specific discipline, the contradictions apparent in the subject content produced by the learning outcome may be seen either as a postulation of scientific findings or as a simplification of the interpersonal, contextual aspects of knowledge production, depending on the ontological starting point. On the other hand, the governmental implementation of curricula or the educational sciences studying this process tends to reduce these contradictions to mere problems of the distribution and administration of knowledge. On the whole, educational research all too often only discusses the relationship

between subject content and the mediating of this content on the premises of the latter. It is questionable whether the different subject contents and different epistemologies do not, in turn, affect the way of mediating, or distributing, knowledge. For example, even though there is an awareness of the tensions between so-called "research-based knowledge" and "evidence-based knowledge" in the educational sciences, there seems to be no discussion of the implications of this in relation to different subject contents or different epistemologies. It is therefore important to tackle the production of knowledge in teacher education from both an overall and a more specific point of view, both from the outside and from within a specific educational content.

2 Literary Theory and Literary Didactics

To discuss this point I will take as an example the relationship between literary theory and literary didactics. The predominant theories of literature, from the early 20th century onward, have pointed out poetic language is a non-communicative language. It is intended to be another language, foreign to all of us, making us foreign even to ourselves, a process eventually leading us to see the sheer "otherness" of things (Sklovskij 1916, Brooks 1947, Foucault 1969, de Man 1984). On the contrary, the role of literature in teacher education programmes often reduces it to an instrument of communication. The question here is how an academic subject content that defies its own use in an instrumental sense – and which disputes the possibility of knowledge being produced in the context of a simple relationship between learning outcome and critical science – should be handled within the teacher education programmes. Another question is whether this example of contradiction may highlight other areas where critical knowledge cannot be produced as an unproblematic and explicit outcome in teacher education.

These issues concerning literary text in the pedagogical situation are often discussed in a framework where ontological and epistemological suppositions are unclear or contradictory. In this respect, it is in particular interesting to study questions concerning the relevance of literature and poetics in Swedish schools as a sign of something crucial being at stake. In Sweden research within the field of mother tongue didactics has primarily been concerned with trying to show the importance of studying literature in school, collecting arguments for

such a standpoint by using empirical data (Kåreland, 2009). This question has become increasingly stressed in recent years and, as we have learned from Foucault, it may be productive to assume that this is nothing more than the repressive presence of something else, something that cannot be explicitly spelled out. Shifting the focus somewhat, it is possible to see that both within the teacher education programme and in society as a whole literature and literature studies are being marginalised. The questions being asked within the field as well as outside of it concern the relevance of fictional literature and poetry in educational situations and in society on the whole. In an educational context and in research within mother tongue didactics one may ask if there is any pragmatic reason for studying advanced literature, and especially poetry, at school. Studies within the field must relate to both formalistic definitions of poetic language as language "made strange", a defamiliarised, twisted, deliberately impeded form of language, and the more contextual socio-cultural theories of late, defining literature as a catalyst for cultural difference or cultural sameness (Thorson, Ekholm, 2009). It must relate to both idealistic, romantic aestheticism depicting poetic language as something sublime, something formally beautiful and the common reader-response definition of a limited phenomenological structure that demands a supplement from the reading subject to become meaningful. The problem here concerns more than the different definitions of the poetic text. It is basically a question of ontology, a question of what is to be seen as a "text" and where the meaning of this text is supposed to occur. On one hand, the literary text is an object in itself carrying meaning while, on the other, the meaning of the text appears in the act of reading. These contradictions concerning the ontology of the text have become even more complex with the arrival of new media, of interactive or multimodal 'texts'. There is a problem in research within mother tongue didactics, or literary didactics, of trying to grasp these different epistemologies, but also – it seems – of trying to map out the 'usefulness' of fictional literature or poetic texts. These questions of the usefulness or uselessness of a particular entity have a bearing on the production of knowledge in society as a whole, and are linked to more fundamental ideological standpoints as seen, for example, in the policy concerning the goals of education.

3 Savoir and connaissance

If one intends to study the role of literary studies, or more specifically that of poetic language, in the context of Swedish teacher education, one soon finds that the subject content is situated at the intersection of at least three different academic disciplines. This does not necessarily mean it is interdisciplinary, but rather that there are several stakeholders claiming it. The academic discipline of Comparative Literature, or Literature, most obviously defines the study of literature in relation to the scientific knowledge of poetics described above. The discipline Scandinavian Languages (Swedish), which plays much the same part as Comparative Literature when it comes to teacher education, tends to focus more on the didactic and instrumental side of poetics and of critical literary discourse. As for the discipline of Pedagogy, though it is not primarily interested in the specific poetics of literary studies, it is equally involved in the subject content of literary studies when it comes to teacher education and educational science. In the educational context, it is common to view literary language as a mode of communication in an instrumental sense, or a tool of semiotic mediation in a Vygotskian sense of the term (Roth, Lee, 2007, Engeström 1999). Besides, not only does Literary Studies in the context of teacher education find itself on the border line of different academic disciplines, different ontological and epistemological traditions, but it is also, like every other traditional academic discipline taking part in teacher education, pulled between two different political, governmental intentions concerning higher education. On one side, the focus is laid on scientific findings and results within traditional academic education while, on the other, the vocational demands of teacher education steer it more towards the direct needs of society and the market. The subject content in teacher education is thus torn between the instrumental and goal-oriented knowledge process of utility politics and ambitions to give it the same status as other traditional, academic and scientific education.

In the example of Literary Studies such a tension between the goals of critical academic discourse and the pragmatics of vocational teacher education, as presented in learning outcomes, is also a tension between different epistemologies. It has in some cases been described as an opposition between the clearly defined epistemology of literary poetics and the unclear or eclectic epistemology of the teacher education programme (Gustavsson, 2007). Questions concerning poetic language

in the context of teacher education must therefore be raised on several levels at the same time since they concern different discursive strata (Foucault 1969/1972, Derrida 1967). The formation of a specific subject content within teacher education is thus both a product of discursive practices within the different disciplines as well as a result of the pre-conceptual, overall "episteme".

As has been pointed out by many, including researchers within educational sciences (Scheurich, Bell McKenzie, 2005, pp. 841-865), Foucault's use of the terms *savoir* and *connaissance* as two different levels of knowledge could eventually be valuable when discussing educational questions. They may enable us to see the formation of knowledge on different levels simultaneously; for example, knowledge of a specific subject content in relation to knowledge of an overall evaluation concerning that specific content. The term *connaissance* refers to formal, academic knowledge, while *savoir* refers to the broad discursive conditions underlying formation of *connaissance*. In our example, both the question of the particularity of poetic language and the pedagogical question about the use and distribution of literary competence are to be considered as *connaissance*. The implicit formations of discourse concerning power relations in teacher education, of the relationship between policymakers, practitioners and researchers are to be seen as *savoir*. This implies that the problems, contradictions and changes that we, for example, find within the disciplines of Literary Studies or Pedagogy are to be understood as results of the problems, contradictions and changes on an overall institutional, political and historical level. The question of knowledge production within teacher education can be seen as overall and not connected to any one academic discipline. However, it is impossible to study these overall questions – for example Plato's question in the dialogue *Protagoras* about which kind of knowledge is worth the most – without the viewpoint of a specific subject content.

4 The change of episteme

To discuss the concept of knowledge in teacher education we thus have to look simultaneously at the general level and at a specific example. Let us start by examining the statement often heard of late that the concept of knowledge has changed radically over the last 20 to 30 years and that it is now seen, at least in part, as relative, socially constructed and highly

contextualised (Niemi, 2008). This idea has been put forward from both the outside and inside of academia, both within specific disciplines and in the overall discourse of science. This change or rupture in the recent history of science, sometimes called "the linguistic turn" or "the cultural turn" (Andersson, 1999, Persson, 2007), questions any simple relationship between subject and object and disputes the positivist concept of truth. As already mentioned, Foucault (1969/1972), called this kind of abrupt shift in the history of knowledge a change of "episteme". This implies a change in the pre-conceptual discourse underlying what can be formed in different sciences, schools or disciplines. If we suppose there has been such a shift in society in recent years, the change would be as fundamental as the one that occurred with the breakthrough of modern positivist sciences in the late 18th century – at the same time as the whole basic concept of western society radically turned secular.

The change of episteme is often misunderstood as being synonymous with a paradigm shift (Kuhn, 1970), but the former speaks of a change on a more fundamental, overall level, while the latter concerns changes within the academy and the science community only. Within the science community it has been pointed out that this shift of episteme occurred in the late 1960s to early 1970s and some critiques have even have suggested an exact date for the event. Persson (2007) seeks to set the date of what he calls "the cultural turn" at 1973, with the release of Hayden White's *Metahistory* and Clifford Geertz's *The Interpretations of Cultures*, although one might as well choose 18 to 21 October 1966 when the conference "The Language of Criticism and the Sciences of Man" took place at the Johns Hopkins University in the USA. On this occasion, French philosophical theory was for the first time presented on a broad level in the United States, something that would later influence and change its higher education fundamentally. Among the hundred or so presentations during the conference ten were given by French guests of honour. The most important paper presented was Jacques Derrida's essay "Structure, Sign and Play in the Discourse of Human Sciences". Cusset (2008) has shown how ideas arising from the Johns Hopkins conference first made their way into the disciplines of Literary Studies and Film Studies in American universities and from there, under the banner of Cultural Studies, to the humanities as a whole. The educational sciences – during the 1950s and 1960s firmly in the grip of positivist pedagogy, based on behaviouristic psychology – eventually

also became influenced by the idea of conceptual, relative knowledge production. The naïve realism of the scientific object of truth is thus questioned by the notion of the scientific discourse constructing the object of which it speaks (Foucault, 1980).

During the 1970s the ideas of post-structuralism in the educational sciences were filtered through American pragmatism (Dewey) and the theories of Vygostky and Bachtin, who developed his ideas of dialogism in a formalist literary context using Dostoyevsky as a major example. Together these ideas, actually based on an 18th century German, speculative and idealistic philosophy, formed a complex under the name of socio-cultural theories, often referred to when papers on educational sciences indicate the recent change of knowledge production in teacher education (Niemi, 2008). In these theories the individual subject is underlined more than the structure evident in post-structural theories, shifting the focus to the individual, subjective production of knowledge and therefore running the risk of forming a totally relative object of discourse. This risk, or misunderstanding of contextual knowledge production, can on the level of *connaissance* in Literary Studies lead to the notion that no qualities in poetic language can be defined outside of the subjective experience, that, so to speak, anything goes. On a general level of savoir this misunderstanding is the basic reason for the positivist critique that is levelled against contextually produced knowledge as being, in fact, no knowledge at all.

5 The problem of contradicting epistemologies in teacher education

It is against this background of post-structuralist ideas filtered through American academic traditions that we must see the current shifts and conflicts in both Literary Studies and in teacher education. The cultural turn in academic disciplines and in society as a whole presupposes the breakthrough of French theory in America. The broadened concept of culture, the idea of every phenomenon being a "text" which can be "read" (Culler 1975, Fish, 1980), the very concept of the term literacy frequently used in the context of educational sciences, meaning an ability to "read" different modes of "text", have all emanated from the same tradition of formalistic, structuralistic and post-structuralistic thinking to which I referred in the introduction of this paper.

When it comes to Swedish school curricula, the influence can be seen in the most recent curricula (2000, 2002) where conceptions such as "broadened literature", "multiculturalism" and "identity construction" all point in the direction of the abovementioned theories. However, even though the concepts used seem to have the same function in the context of teacher training as they do in the specific field of Literary Studies, the ontology and epistemology often differ fundamentally. For example, Gustavsson (2008) has argued that the study of literature within teacher education becomes diffuse and unscientific due to the different and sometimes contradicting epistemologies being simultaneously at play. Although the notion of knowledge production in teacher education, as mentioned above, can be linked to socio-cultural theories of interaction and contextualisation, it seems that much research in the educational science field is based on a positivist ontology of an uncomplicated relationship between the subject and the object – postulating, without further discussion, the objective truth, or the essence, in scientific findings, in the object of study. In this respect, it does not really matter if scientific studies carried out within the teacher education field are labelled "research-based" or "evidence-based" as both the – often implicit – ontology and epistemology contradict the social-cultural theories being used. In other words, when the object of study comes from within a socio-cultural, contextual production of knowledge in teacher practice and teacher education and the scientific methods for studying this object come largely from a positivist empiric tradition – large samples of data, observations, surveys; statistics – there is a problematic contradiction in both ontology and epistemology between the theories and methods used. There seems to be discontent with this kind of research even in the educational sciences hosting it. As stated by Niemi (2008), for example, current educational research often does not match up to the expected standards. She mentions problems with eclectic methods, paradigm wars and with large datasets, but surprisingly enough it seems that the fundamental problem of the unclear or contradicting ontologies and epistemologies producing these problems is rarely discussed or even fully recognised.

6 Conclusion

One could, of course, dispute that a change of fundamental ontology, a shift in episteme, has ever occurred, whether you choose to call it post-modern, post-structuralist, socio-cultural or linguistic. The recent shift towards more instrumental and goal-oriented education seems to indicate this is the case. Within the scientific communities of the humanities and the social sciences it has also been mentioned that this could be the result of a so-called "positivist backlash" (Scheurich, Bell McKenzie, 2005, pp. 1-32), a renewed belief in the possibilities of establishing scientific truth and to evaluate the quality of education, its goals, with statistics or other supposedly exact measurements. As these changes leading towards a goal orientation within teacher education seem to be the result of political pragmatics, of the demands of European societies and working markets, it should be considered to be a concept of knowledge forming on a broad level, as *savoir*. The point, however, is not to establish whether or not the positivist or the contextual, constructivist concepts of knowledge are more or less "scientific", more or less right or wrong, it is rather to clarify the differences and acknowledge the problems that can be caused in the relationship between subject content and learning outcomes.

Looking again more closely at the example of Literary Studies, it is possible that the exegetical literacy of the critical knowledge within poetics, the *connaissance* of poetics, could be used to "read" the underlying *savoir* of the learning outcomes, and therefore shed some light on other areas in teacher education where critical knowledge cannot be produced as an unproblematic and explicit outcome. These areas could be all subject contents resting on a contextual and constructivist concept of knowledge, for example, the interactive learning of different actors in a classroom situation, or teacher knowledge based on personal experience. These knowledge areas are not distinct, separate entities, nor are they easily categorised, which explains why problems of contradiction and lack of clarity immediately occur when the positivist concept of objective scientific truth is applied to the findings, which is exactly the case in most goal-oriented and instrumental evaluations.

As shown before, the teacher education programme encounters particularly serious problems with the eclecticism of different

disciplinary traditions, encompassing different epistemologies and different scientific methods. If the image and status of teacher education and the teaching profession are to be improved it is important to clarify and discuss these differences on the ontological and epistemological levels. In our example of Literary Studies these differences are causing problems on the basic level of subject didactics in teacher education, producing unscientific studies – for example, when poetic language is studied in a classroom observation and one ignores the problem caused by the use of empirical research methods, of a positivist epistemology, on a subject based on critical speculation. The same can probably be said of studies within the discipline of Pedagogy where, for example, Bachtin's theories of dialogism, derived from critical readings of Dostoyevsky's novels, are being used in an empirical study of interactive classroom learning. To avoid these kinds of unsatisfying and unscientific eclectics, teacher education has to clearly define the different starting points of the several stakeholders involved in improving and developing its content. To meet the demands of high profile scientific education the different epistemologies should be recognised and both methods and evaluations should be in accordance with each different ontology and epistemology. To meet the demands of industry and the government – the other two dimensions of the so-called "Triple helix" – the disciplines involved in teacher education should have a clear view of the traditions, ideas and implicit ontology that constitute these demands. For instance, the demands of liberal economics and politics connected to a positivistic ontology will obviously steer teacher education in the direction of utility, while critical, contextual knowledge will run the risk of being rendered invalid if such a course is maintained. Seen for what it is, made explicit in the process of policy development, such problems could eventually strengthen the teacher education programme, making it an option for the talented student interested in the politics of both academic disciplines and society as a whole, in both the formation of *connaissance* and in the *savoir* necessary for its development.

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Drama Education and Developing the Personality and Social Competencies of Teachers

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ABSTRACT

The demands of the teaching profession result from its nature which in essence is in active social interaction with pupils. Therefore, personal and social competencies make up the most important parts of teachers' competence especially of primary school teachers. This contribution deals with a structure of personal and social teacher competencies - skills, attitudes, knowledge, properties, experience and general possibilities for its development in pre - service education. Furthermore, this article introduces drama education as one of the effective possibilities for the development of teacher personal and social competence support. Drama education is a system which uses theatre and drama as means for education of children as well as adults. A play role, acting in fiction situation, improvisation, solution and acting in situation with conflict are the typical methods of drama education. The article discusses some experience with the utilisation of drama education methods in pre-service teacher education.

Key words: drama education, personality and social competencies, teacher, curricular reform.

1 Requirements of the Czech Republic curricular reform concerning changes in the professional competencies of teachers

Since 2007 all schools in the Czech Republic have been teaching according to a new education programme – the Framework Education Programme. Schools are now using this programme to create their own distinctive school education programmes. The change this programme was intended to introduce into Czech schools should impact the very essence of education and places an emphasis on fulfilling the following goals:

1. to allow students to embrace the learning strategy and motivate them for lifelong learning;
2. to encourage creative thinking, logical reasoning and problem-solving skills in students;
3. to guide students toward multilateral, effective and open communication;
4. to develop the ability of students to co-operate and respect work and success, both their own and that of others;
5. to prepare students to present themselves as unique, free and responsible personalities, to assert their rights and fulfil their responsibilities; to teach students to express positive feelings in their behaviour, conduct and in experiencing life situations; to develop awareness and sensitive relationships with people, their environment and nature;
6. to teach students to actively develop and protect their physical, mental and social health and to take responsibility for these;
7. to lead students towards tolerance and consideration for other people, their cultures and spiritual values; to teach students to live together with other people; and
8. to help students recognise and develop their own abilities in agreement with realistic possibilities and to apply them together with acquired knowledge and skills in making decisions about their own life and professional orientation.

(The Framework Education Programme for Elementary Education, 2005)

The programme introduces and supports a number of changes in education. For example, it is now required to pay closer attention to the needs and possibilities of students, to apply individualised and internally differentiated lessons, to create a positive social, emotional and working climate based on effective motivation, co-operation and activating methods of teaching etc. These changes raise the question of which changes will then need to be made in the preparation of future teachers –which of their professional competencies should be emphasised more than in the past?

However, it is not enough to only change the methods, forms or content of the instruction with something else (see, for example, Seberová, 2006, Gobelová, 2006). Changes in education also require alterations to the social, emotional and working climate of the classroom and even the entire school. They require a different perspective on education, communication and problem solving. More than through new methods,

teachers influence these via their own personal conduct and communication, their different overall perspective and approach to students, to education, the world and that which comes from their behaviour and communication.

Hence teachers not only need professional knowledge, command and skills for their activities, but also personal qualities, knowledge and experience of general human nature. This will allow them to be teachers/professionals on one hand and teachers/human beings on the other.

Through the rapid and widespread development of information technology teachers have lost their fundamental position in the dissemination of information and face the task of making the school more attractive to children. This change is necessarily related to the quality of personality-social skills, knowledge and experience.

2 The personality-social competence of the teacher

2.1 The concept of the personality-social competence of teachers in the Czech Republic

There is a belief that the personality and social sides of a teacher's individuality are connected to such a high degree that it is useful to perceive and develop them as a single competence – **the personality-social competence.** Experience shows that it is necessary to balance both sides of a teacher's faculties – personality and social (communicative). In the case of social skills, the need to strengthen the personality side is almost always emphasised (above all self-recognition and self-reflection) since the foundation of good social relationships is a balanced, integrated individual. In relation to personality skills, engagement in social contact is emphasised as the development of the personality cannot occur without relationships with other people (see, for example, Kosová, 1998).

The introduction of elements of personality-social competence into the process of educating student teachers has undergone certain developmental changes over the past years at Czech universities, and these have crystallised into several contemporary forms. Svatoš (2000) addresses these developmental changes and the contemporary status of various approaches to the development of personality and social

qualities at Czech (Czechoslovak) universities, and presents five individual curricular blocks:

1. **Rhetoric**, which contains development of the verbal component of pedagogical communication (spoken expression, dialogue, questions, rhetorical exercises).
2. **Social communication**, with these content units: sharing experiences, co-operation with a partner, nonverbal communication, social dialogue and its control, improvisation, and the locution of personal speech.
3. **Pedagogical communication**, whose contents focus on: the structure of pedagogical skills, communication and the teaching process (mainly at the primary school), alternative approaches to teaching and communication, verbal teaching methods, lecture and instruction experiments, interaction with students' parents, communication with children, pedagogical situations in the school.
4. **Drama education**, which at individual schools includes personality and social education, drama games and improvisation, active relaxation, the relationship of experience and expression, identity awareness, reflection and self-reflection, self-recognition, creativity.
5. **Diagnostics – analysis – observation**, encompassing the discovering, observing and evaluating of other people, diagnostics of capabilities for co-operation, observation and evaluation of communicative expression, and technical resources in communicative preparation.

2.2 The structure of the personality-social competence

The personality-social competence is defined as a set of intrapersonal and interpersonal skills, knowledge, approaches and qualities that give individuals social behaviour and conduct appropriate to the given social situation and the given problem. They give teachers resourceful and effective behaviour and conduct in corresponding pedagogically standard and non-standard situations.

The quality of the teacher's personality-social competence is best seen in the quality of the teacher's communication; for this reason, the discipline concerned with developing this competency was named Basic Pedagogical Communication at the Faculty of Pedagogy at Ostrava

University. The discipline aims to develop the personality-social competence of future primary education teachers. The subject is a link between pedagogical theory and pedagogical practice and is taught in the first year of study. The concept of the programme is very close to the programmes of pedagogical disciplines and pedagogical practice.

As part of research at the Faculty of Pedagogy at Ostrava University in the 1999-2002 period the minimum content of the personality-social competence was clarified:

> In the area of **personality development**, it is about the student teacher's self-knowledge, perceiving one's own capabilities, skills and personality qualities – their strengths and weaknesses with respect to the teaching profession, self-reflection, perceiving one's own external expressions in behaviour and searching for individual ways to control them in pedagogical situations. The process awareness of the selected methods of self-reflection and skills in using some of these is emphasised. Also encouraged is **emotional stability**, which is concerns teachers' self-respect and self-awareness. This is enhanced by perceiving one's own emotions and states, naming them (and working with embarrassment), and searching for individual ways to improve self-respect and self-awareness. Authenticity is also important as it allows a presentation of the teacher's opinions which are in harmony with their own internal attitudes and emotions. Skills in self-presentation are supported.

From the perspective of **social competence,** four areas of a student teacher's development are concerned. The first involves perceiving partners – **social perception.** This includes, for example, perceiving a partner, understanding the partner's non-verbal expression, knowledge of factors that influence the social pedagogical perception, individual skills for empathic listening etc. The next area emphasises **pedagogical communication**, understood as information exchange in pedagogical situations. Information is seen as encompassing emotions, attitudes, imaginations etc. Student teachers focus on, for instance, the appropriate use of nonverbal communication in pedagogical situations, comprehensible and clear expression, sharing thoughts, opinions, emotions appropriate to the particular context, knowledge of the characteristics of healthy communication and seeking individual ways to incorporate them into pedagogical communication etc.

The third area regarding student teachers' development is **conduct in pedagogical situations.** Student teachers learn to respect the principles of the pedagogical situation as a social situation and its specifics. The student teachers learn to promptly react to situational circumstances and their changes, developing their improvisation abilities, awareness of conflict in pedagogical situations, process knowledge of behaving in conflict situations and individual skills (formulating problems, searching for possible solutions) in the pedagogical situation etc. The last area lessons focus on is **holding the social role of a teacher.** This covers, for example, knowledge of the specifics of the social role of a teacher or the skill of appropriately expressing the teacher's status (Cisovská, 2003).

3 Drama education – a path to developing the personality-social competence

3.1 A description of drama education

Drama education is characterised as "…a system of controlled, active social-artistic instruction for children and adults based on the use of the basic principles and approaches of drama and theatre defined primarily by educational or formative and secondarily specific artistic demands on one hand, and individual and joint possibilities for the further development of the personalities of participants on the other" (Valenta, 1995, p. 27). Drama education as a discipline has its own goals, contents and methods.

Drama education instruction involves the *entire personality*. The main goal of drama education is *personality, social and aesthetic-artistic* development. The goals of drama education cover three areas. First of all, its methods make it possible to influence attitudes since they touch on cognitive, emotional and conative components. They also help develop abilities and build skills – sensory, motor, intellectual and, above all, social. One set of important abilities is creativity. Last but not least is knowledge. In drama education this is primarily knowledge of oneself, of relationships, communication and emotions. Drama education also includes goals in the area of building a relationship with the dramatic arts and art in general. Another goal of drama education is to facilitate learning in other teaching subjects.

Drama education addresses themes of **human life experience** (i.e. particularly relationships between people, experience, behaviour and conduct of people, interpersonal conflicts), especially in situations that can be characterised as dramatic. In this way, life is modelled through acting so that student teachers' experience is improved and so that the acting-modelling life situations create an enriched or even entirely new experience.

Education here makes use of the spontaneous human ability to act and gives this skill form by means of theatrical means with a specific aim. In other words, the methods of drama education are based on theatre, which is above all **situational role playing.** This mainly concerns situations that contain a certain conflict the actors are forced to resolve on the spot. The situations are understandably model, fictional and created according to specific rules determined ahead of time. **The obvious fictional nature of the situations**, as Machková (1998) states, prevents any attack on the actors' own person, and allows the actors to act out their attitudes, relationships and problems through metaphor and images.

The basic method in the broadest sense of the word, common to all styles and types of drama education, is **improvisation**, according to Machková, arising unscripted directly on the spot. The process provides an authentic experience in a fictional setting where the actor encounters actual difficulties (1998).

3.2 The development of individual areas of the personality-social competence through drama education

3.2.1 Drama education and the intrapersonal competency of the teacher

Drama education provides us with information about ourselves – confirming, confuting or correcting the image we have of ourselves. Thinking and decision-making in fictional situations, in the framework of fictional roles, allow us to confront our own conduct and behaviour in real life with those dealt in a play situation.

Improvisation is an important tool for the development of intrapersonal competencies, enabling the actor as part of the play to liberate her/his "I" and behave more on behalf of herself/himself than in real life situations (Valenta, 1995). This is also documented by Moreno who says that we can be more real on stage than in life. Actors on stage have the

freedom to be what they are, more deeply and precisely than in real life (Scheiffele, 2001).

The following play a role in the emergence and development of intrapersonal competence.

(1) Information (reflections) **from other people.** Students gain information about themselves from other students or teachers mostly. To supply the information, several occasions arise in drama lessons: **out of role play** – students give feedback to their colleagues, the teacher gives feedback to the students; **in role play – after role play** from observers, for example concerning played skills (truthfulness of character creating, prompt reaction and ability to behave in a situation etc.); and during role play from a player in another role concerning the way of dealing with a character which we are now playing (acceptance or rejection of the character's behaviour, acceptance or rejection of their solution etc.)

(2) The processes of self-reflection – recognising and analysing our internal conditions and outward behaviour on our own. Self-reflection is one of the main goals and tools of drama and also involves alpha and omega learning. It occurs both in lessons and out of them. In lessons, students have several opportunities for self-reflection, especially in role playing in fictional situations. By encountering a role that is not our own we not only learn about other people by stepping into their shoes but we also learn about ourselves by playing that role. In building the character's interpretation players rely on their own experience from which they create their idea about the character, about their behaviour, verbal and nonverbal communication, their life values and attitudes. Valenta (1995) states that the self-image of the actor confronts the model of a specific role and this process contributes to the actor's self-recognition. Besides, the role provides players with a space to experiment with their behaviour, communication, resolution and at the same time provides them with necessary distance. Outside of drama lessons, student teachers have the possibility to reflect on their development through a self-reflection diary which they write during the entire course of their study.

(3) Processes of comparing, in which we have some kind of measure to evaluate ourselves (we can be the measure, or it can also be the

social environment). The comparison is a naturally ongoing mechanism. In drama, it is applied in the following relationships:

- With yourself – students can compare the level of their competencies involving personal changes in areas of desired development with their previous condition. This allows them to not to assess their progress but also to plan the next steps of their own professional development.
- With the other actors (student teachers) – how someone else reacts to a given situation or problem. This does not mean they have to compete to see who is best. This comparison can lead to a strengthening of self-respect and self-confidence: by comparing themselves with others students discover that what they feel and think is similar to what others feel and think, and that this is not "bad" ("*I was surprised that not everyone wants to be a teacher at any cost. I thought that I was the only one who was uncertain"* – student's diary comment). On the other hand, the student can discover how he/she is original and unique.
- With the character they are creating – actors connect the demands of the role with their own possibilities and internal resources. In this way students can encounter obstacles on the path to playing this role or, on the other hand, discover the necessary conditions.
- With the characters other actors are creating – actors compare their own internal model of the characters played by others with the internal model of the other actors.

(4) The factor of specific experience in specific situations (the situations can also be fictional). Student teachers can gain experience in drama education situations in various ways: through natural changes in their **life roles** and the confrontation of themselves with their demands (e.g. they become the head of a working group during preparation of the situation), or by empathising with the roles of partners (outside of organised role playing). This can also occur in artificially induced situations in which **fictional** circumstances are additional, enriching possibilities of real circumstances that foster self-recognition and self-evaluation. The same is true when playing other roles through which they

> confront what they know about themselves, and in the process gain even greater awareness (Valenta, 1995).

Drama education is also based on highlighting reflected reality; this encourages a greater awareness of a number of factors. This is documented by Scheiffele (2001), who writes that drama is not merely the imitation of reality, it is an expansion, an exaggeration. He recalls personal experience and the experience of clients who remember these dramatic games for a long time and sometimes use them as a foundation for their lives. The students sometimes object, claiming that the acted situations are pretentious and that things can never be this way in reality. It is necessary for them to realise that the acting is not a simple reality but it is an image of reality, a symbol.

The development of the intrapersonal competence takes place in the subject of basic professional practice during the course of the entire year. It is included in all activities, in the overall atmosphere of the approach, although the greatest attention is paid to this area at the beginning of lessons. Although learning in drama education has a contextual nature, certain activities are focused more on the specific area of personality-social competencies than on others. For example:

Imagine yourself in the role of a teacher who has already experienced her/his entire career and is approaching retirement. You have received a letter from a former student who is already an adult. What would you like to read in this letter? Put the words down on paper.

3.2.2 Drama education and the competence for social-pedagogical perception

Acting involves the "complete modelling of interactions and communication, with changes of the actual life roles of the characters…mutual empathy, paraphrasing, modelling and reflection of characters 'as in real life'. The actors experience everything as the representatives of the characters, as they learn, in the process, to get to know people, themselves, relationships and communication" (Valenta, 1995, p. 113).

The students learn social perception by being directly involved in fictional situations. In the process of playing out roles they make themselves understood, persuade, perceive their partner, and attempt to understand their verbal and nonverbal communication. Sometimes

(especially in the first few lessons) the task is aimed directly at social perceptions with the mission of "determining what exactly your partner is communicating to you in their role." A more demanding form of this assignment is to uncover the partner's "secret wishes".

In addition to direct role playing, the actors can also learn by watching someone else's play, like a regular form of social study analogous to observation learning. According to Valenta (1995), watching such plays has several possibilities:

1. **The simple observation** of plays has the advantage that the observer is not restricted in any way in perceiving the situation. I believe this is best used when the participants of drama education already have some experience and are sufficiently motivated to learn. They are then able to concentrate on their observations, reflect without any advance task and their views are original and enriching.
2. **Observation with an observation assignment.** This is conditioned by an education goal: this can be a simple description or a more complicated analysis and interpretation. The observation can be focused purely on a teaching aim such as the identification of an error in the rehearsal of certain skills like assertive communication. The observation task can involve the entire acted situation, all of the characters, or only some of them. The students can observe, for example, nonverbal communication (e.g. only proxemics), verbal communication (e.g. questions), the conduct of one character or relationships between characters.
3. **Observation with involvement in the play**, which increases the level of observation; for example, the instructions: "When you recognise what setting your colleague is playing, enter the action as an actor and develop the situation… Once you recognise what the character is interested in, step in and take action."

The following is an example of the assignment of a situation in which the development of the social-pedagogical perception was emphasised:

> *A situation in the staffroom is created (fictional circumstances created using classroom resources, based on the experience of the students). This is a place where the school's teachers meet (fictional roles that the students select using their own experience and the "needs" of the school). A new teacher – a fresh pedagogy graduate – enters the situation. On the basis of an agreement with the teacher, each role has a secret assignment*

(to win over the new colleague, to be an opponent of introducing new teaching approaches etc.).

3.2.3 Drama education and the competence for pedagogical communication

The methods of drama education make use of fully developed communication and various possibilities of behaviour and conduct. As in real life, all the functions of communication also appear in fictional situations – information is exchanged, participants influence one another. Communication can take place on several levels: characters communicate with characters (the "teacher" with the "parent of a struggling student"), an actor communicates with an actor, and there is also communication between the actors and the observers. Even when the communication between the characters in the play is disrupted, the communication between the actors (the interaction of the actors) continues (Valenta, 1995).

Actors in dramatic plays can be put into three different levels of role playing and communication within these.

On the level of simulation, i.e. in one's own social role in a momentarily non-existing situation, which allows the actors to create and strengthen their own life role and communication, as well as to search for alternatives to their own communication (a "different I") and the use of communication knowledge in a situation they usually do not find themselves in. For example, a situation in which students are given the task of persuading their fellow students of the usefulness (fictional) of a charity event.

On the level of alteration, actors take on the role of a different person, act as someone different, a different character, without any deeper psychological treatment. The student teachers can find out how their internal model of the given role (teacher, parent, inspector) communicates; it gives the student teachers an opportunity to be themselves in a different role and to search for an appropriate communication pattern.

The final level, on which the actor can communicate, is characterisation, which means a deeper elaboration of acting out an alteration type involving the search for the complex psychological features of the character. For the student teachers this means finding out how individual characteristic attributes of a person can influence the course

of communication, and they are given the opportunity to try out their own conduct in the framework of these personal qualities.

Drama education fosters the development of communication competencies primarily by offering actors the opportunity to behave outside of their entrenched standard models of interaction and communication (Valenta, 1995). The student teachers have the possibility to try out new strategies and experiment.

3.2.4 Drama education and the competence of conduct in pedagogical situations

The situation in drama education is the content of the instruction, the subject matter; in the same way, the pedagogical situation becomes the subject matter in Basic Pedagogical Communication.

The students learn by acting in various types of fictional situations and in their subsequent reflections they discover and control pedagogical situations. They identify and try to understand the content of the situation (meaning), i.e. to grasp what the situation involves.

By discovering that they can see a situation from a variety of perspectives (roles), the student teachers learn that the meaning of the situation need not be the same for all participants. They also try to understand the circumstances of the situation; these include both constant conditions forming the specifics of the pedagogical situation and conditions that change and thus form the dynamic nature of the situation. Of equal importance is a comprehension of communication mechanisms (the interpretation of verbal and nonverbal communication signals) and, finally, recognising oneself as an element in the system of the situation.

Conflict situations – dramatic situations that qualify as non-standard pedagogical situations – have a special standing. Conflict situations are good opportunities "for practicing intervention, changing situations, their quick analysis and searching for communication strategies" (Valenta, 1995, p.110).

An example of activities in which the development of the competence of conduct in pedagogical situations was emphasised is:

> *The student teachers (in groups) are to decide on a solution in the case of a student from 5th class who intentionally damages school property. One group decides in the role of school pedagogues, while the second group*

decides in the role of parents. The two groups put their decisions up against one another and decide on the optimal solution.

The following situation is set up as a "class meeting" in which one student teacher in the role of the student from 5th class must inform the parents of what has happened and of the proposed solution. The other students play the role of the parents. The teacher takes on the role of the parent who completely disagrees with the solution, lets this be known in an aggressive manner, and attempts to win the other parents over to her/his side. The student in the role of the teacher has the right to bring the entire situation to a halt by saying "stop", at which point the actors relinquish their roles and work together to try to find an optimal solution to the situation. After the student in the role of the teacher says "action", the situation continues at the point where it left off.

3.2.5 Drama education and the competence of holding the position of teacher

For the student teachers and the development of their competence, role playing holds **motivational importance** since this is a task that activates them. Because the student teachers have an opportunity to investigate the demands of the role from the "outside," they learn not only to orientate and recognise themselves in it, but are also "pressured" to resolve the situation in which they find themselves. They do not solve a problem they may face in the future, but the circumstances give them a good impression of what may lie ahead. Instead of answering questions like "what should a teacher do when…," the student teachers solve the task given by the instructor: "Imagine you are a teacher and you have…"

The role **facilitates** the acquisition of the competence by introducing an "as if" scenario into the situation and "oscillating between the authentic form of my existence and an authentic form of non-authentic existence" (Valenta, 1995, p. 37) frees the students for a moment of the responsibility that fetters them in a real school situation and also adds an activity that provides an assignment. The fictional situation allows the student teachers to see the subject matter in the activity's context. Abstract concepts become specific in live actions; dry theory takes on a tangible form. Additional facilitation comes from the role showing how it is played by one actor and then another – by means of exchanging roles.

We cannot forget the function of the role as an **actual learning device (training)**. The playing of the role teaches the student teachers certain active skills belonging to the role. The action can be repeated several times, evaluated and then the role can be acted again. Failures are permitted in drama education; these are then analysed and explained. In such a case, the role is not only the means but also the content of the learning and the subject of its "investigation". Experience with a certain role teaches us to perceive in a comprehensive manner – to understand the motives of other people, problems, experiences in various situations, attitudes etc. (Valenta, 1995). Role playing is mainly improvised and thus teaches us to react better to circumstances without preparation in real – in pedagogical situations in the case of teachers. By playing roles the students learn to react to changing circumstances, they learn more about themselves and how to control their behaviour, how to change roles and the expected behaviour and conduct this entails.

Role playing can also be a means of relaxation and a certain release (also see Machková, 1992), especially when improvised it produces feelings of freedom, and works in the framework of precisely defined rules. Scheiffele (2001) notes that drama is not only a tool for acquiring experience and the incorporation of new knowledge but it is also a tool for expressing the suppressed dark sides of our personalities. Actors discover that they can choose to be different, they can play characters who are completely different to them. This can deliberate, bring release, freedom and courage to experiment with the role, and change the established structures. The statements made by the student teachers show that drama education is a form of relaxation for them ("*After the improvisation I felt as if I had taken a shower, some kind of sauna*" – see the diary entries).

What is very important for teachers is that the methods of drama education facilitate the acceptance and creation of one's own path to authenticity and discovering the essence of the teaching profession.

Examples of activities that emphasise the development of the competence for holding the position of teacher include:

> *A card with a role is attached to the chest of each student in a way that prevents them from seeing the role they have been assigned. The roles are taken from the school environment (school director, beginning teacher, favourite teacher, the "tough" teacher, struggling student, the parent of a struggling student, the best student, inspector, caretaker, a teacher with*

no authority etc.). On the basis of the behaviour of the others, each student must guess what role they have been given and, on the basis of this feedback, adapt their behaviour to this role. The situation is specified by the setting – the school corridor. Full pantomime is used in the first phase; full acting in the second phase (the students are not permitted to say the roles written on the cards). Questions after the first phase: "On what rung of the social ladder is your position? Where can you be? By which communication means did you find out?" After the second phase: "What's it like for you to play this character? By which communication means did you find out?"

4 Evaluation of the development of student teachers' personality-social competence

To evaluate the development of the students' personality-social competence the method of **analysing written self-reflections** in the students' diaries was used. The interpretation had the nature of qualitative research and it highlighted the prevailing themes appearing in the students' diaries. There were 113 students from the first year of study involved in the research. The results can be divided into three groups according to the most common themes.

The most frequent themes are connected with **self-reflection and self-regulation.** One- quarter of the students described their development with the words "better self-knowledge", others described their development as perceiving their own emotions and states, their own social skills, abilities, knowledge or attitudes. Examples include: "*This lesson has given me knowledge in perceiving how much patience I have.*" or "*At the beginning of the semester I thought that nothing could be changed because I am 20 and I felt like an adult who was already complete. But now that the semester is approaching the end and I can see a certain amount of progress, I am just now realising that I have deficiencies and shortcomings. I think this is the first step to success.*"

The next most frequently appearing themes are connected to **coping with internal states and emotions –** shame, apprehension when it comes to speaking in front of others. Examples include: "*It calmed me down that I am not with this 'handicap' alone*" (thought shame) or "*I have noticed that I also lost the fear of not being successful.*"

The third most common theme was **social perception,** very often connected with the motive of tolerance, understanding of other people and listening. For example, *"I am coming to the conclusion that nobody is perfect, everybody is unique…"* or *"So I talked and talked. I realised that sometimes I will have to hold back and listen more because, in order to speak more effectively, I first need to listen."*

In the last theme the students emphasised the enrichment of their **communicative** competence, especially in nonverbal communication. For instance, *"Today's seminar opened my eyes a bit, and now I pay more attention to the people around me – to the expressions on their faces, their body language and I think about what their emotions are."* Or *"I can verify that nonverbal communication comes prior to verbal communication and it is not possible to cheat."*

The students' analysis reveals that they positively evaluate the changes in their own personal-social competence. They stress their personal part of the competence, namely at the level of their self-awareness and self-evaluation.

5 Conclusion

One of the recommendations arising from the National Programme of Education Development in the Czech Republic (2001) is to increase the quality and functionality of the preliminary education of teachers. The requirement to more strongly take the needs of practice into account presumes the traditional academic approach to teaching the strengthening of personal-social development is to be changed. This document highlights empirical education, theoretical reflection and self-reflection training, and the training of communication skills. The evaluation results for the Basics of Pedagogical Communication subject show that drama education is making a significant contribution to the realisation of these tendencies through its methods in the areas of personal development and social competence. It is thereby helping teachers to better manage the current curricular reforms in the Czech Republic.

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Appendix:
TEPE 2010 Conclusions and Recommendations

Teacher Education Policy in Europe (TEPE) Conference 2009 University of Umeå, Sweden

Monday 18th – Wednesday 20th May 2009

Conclusions and Recommendations

The TEPE Network met at the University of Umeå for its third annual conference from the 18th to 20th May 2009 and participants exchanged views about on-going development processes in Teacher Education in Europe. We also reflected on changes which have been implemented at our institutions, as well as in our national systems, as a result of joint efforts at a European level to modernise higher education in general and teacher education in particular as an integral part of this system.

We are witnessing important changes in educational systems in Europe at this time and the year of 2010 will be an important landmark in the Bologna Process. It is expected that at the Vienna and Budapest March 2010 conference, European Ministers from 46 countries will declare the establishment of a common European Higher Education Area and that the basic aim of the Bologna Declaration has been achieved.

We note the Leuven/Louvain-la-Neuve Communiqué of the Bologna Ministers "The Bologna Process 2020 -The European Higher Education Area in the new decade" of 29 April 2009 as well as the "Council Conclusions on Education and Training 2020 Strategy (ET 2020)" from the Council of the European Union of 12 May 2009.

The first document makes it clear that while we are coming ever closer to a common European Education Area in 2010 – a goal of the Bologna Declaration of 1999 – we are also facing new challenges "beyond 2010". Ministers state that: "In the decade up to 2020 European higher education has a vital contribution to make in realising a Europe of knowledge that is highly creative and innovative. Faced with the challenge of an ageing population Europe can only succeed in this endeavour if it maximises the talents and capacities of all its citizens and fully engages in lifelong learning as well as in widening participation in higher education."

The second document also considers the position beyond 2010 and the conference welcomed the fact that Teacher Education remains a priority also on the "EU-27" agenda. Strategic objective 2 on improving the quality and efficiency of education and training states that "there is a need to ensure high quality teaching, to provide adequate initial teacher education, continuous professional development for teachers and trainers, and to make teaching an attractive career-choice."

The conference recognised that task of the TEPE Network is to support Teacher Education within the 2020 EU-46 Higher Education Area as well as within the EU-27 Education and Training perspectives.

The conference reconsidered and reaffirmed the **Conclusions and Recommendations** adopted at the Ljubljana conference in 2008. Working Group took these as a starting point and discussions were wide ranging and action oriented. Accordingly these Key Recommendations from 2009 can be seen as a list of priorities for 2010 in order to make progress on achieving the longer term goals that were elaborated in Ljubljana in February 2008.

Key Recommendations

The conference called for:

1. Recognition of the importance of a long term and integrated view of teacher education that includes initial teacher education, induction and continuing professional development and that also recognises the need to support teachers as life long learners throughout their careers.
2. Greater recognition of the need for teacher education to be based on a balance and interconnection between a strong research-based curriculum in Higher Education and strong support in the process of identity formation of teachers in practice.
3. Greater attention to be given to strengthening the professionalism of teacher educators as a task for the professional community of teacher educators in the first instance, but also supported by incentives from policy makers.
4. The development of a common framework of quality indicators for Teacher Education in Europe.
5. Three way communication between researchers, policy makers and TE practitioners: researchers in TE, policy makers and decision makers at the institutional, local and national level and TE practitioners at the institutional level and as mentors in schools.
6. An emphasis on systemic quality enhancement at the institutional level (the Bologna Process stressed that quality is the primary concern of higher education institutions), comprehensive national action plans for implementing the agreed European principles (within the EU Education and Training 2010) as well as national action plans regarding the "social dimension" (stressed in the recent Leuven / Louvain-la-Neuve communiqué of the Bologna ministers).
7. The development of joint research projects in order to advance research in and on Teacher Education and in particular to promote quality in Teacher Education.

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Introduction

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